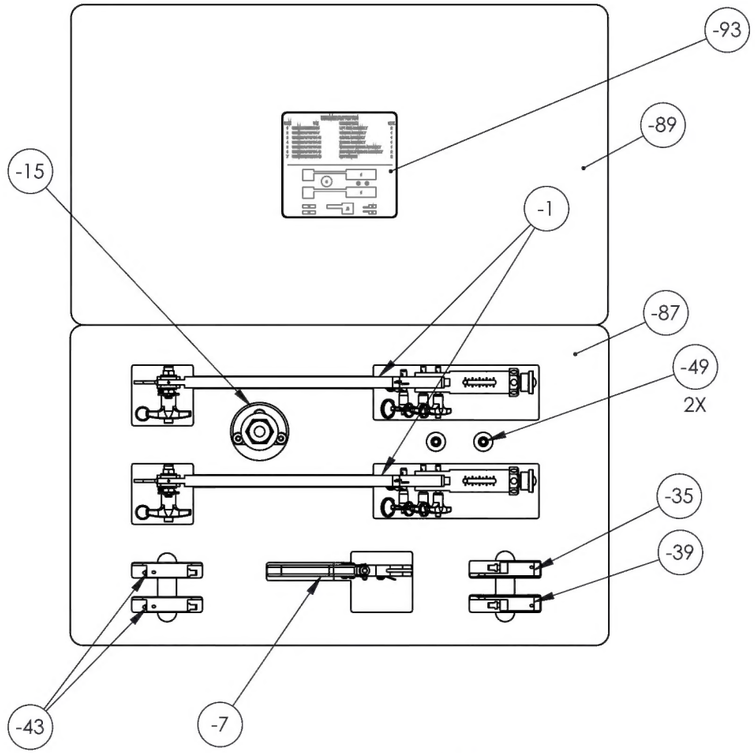
ASSY QTY	ASSY QTY	ASSY QTY	ASSY QTY	ASSY QTY	ASSY QTY	ASSY QTY	ASSY QTY	B/O	Part #	UNIT QTY	Description	Material	B/O INFORMATION OR SPECIFICATIONS	PG.
							X		-1	2	LIFT ARM ASSY.			2
							1		-3		LONG LIFT ARM	1018/1020 CR		3
							1		-5		LIFT ARM	1018/1020 CR		4
						X			-7	1	HANDLE ASSY.			5
						1			-9		HANDLE	6061		6
						1			-11		HANDLE PIVOT	4140/4142		7
						1			-13		HANDLE HINGE	A36/1018/1020 HR		8
					X				-15	1	GAUGE ASSY			9
					1				-17		GAUGE	1018/1020 CR		10
					1				-19		NUT 423	1018/1020 CR		11
					1				-21		GAUGE PIN	1018/1020 CR		12
				X	3				-23		GAUGE KNOB ASSY			13
				1					-25		GAUGE KNOB	A36/1018/1020 HR		14
			X				1		-27		LONGER GAUGE ASSY			15
			1						-29		LONGER GAUGE	1018/1020 CR		16
			1						-31		NUT 325	1018/1020 CR		17
			1						-33		LONGER GAUGE PIN	1018/1020 CR		18
		X							-35	1	WEDGE ASSY			19
		1							-37		WEDGE	6061		20
	X								-39	1	MIRRORED WEDGE ASSY			21
	1								-41		MIRRORED WEDGE	6061		22
X									-43	2	RECTANGLE WEDGE ASSY			23
1									-45		RECTANGLE WEDGE	6061		24
1	1	1							-47		PIN	S.S.		25
									-49	2	NUT HANDLE	S.S.		26
					1			B/O	-51		DOWEL PIN	STEEL	ØM6 X 26mm (MCMASTER-CARR #91595A461)	9
			1					B/O	-53		DOWEL PIN	STEEL	ØM6 X 30mm (MCMASTER-CARR #91595A467)	15
							1	B/O	-55		HEX HEAD CAP SCREW	STEEL	AN6-11	2
							2	B/O	-57		FLAT WASHER	STEEL	Ø3/8 (MCMASTER-CARR #98023A031)	2
							1	B/O	-59		COTTER PIN	STEEL	Ø3/32 X 3/4 (MCMASTER-CARR #98338A135)	2
							1	B/O	-61		SLOTTED LOCKNUT	STEEL	3/8-24 (MCMASTER-CARR #95030A160)	2
						1	2	B/O	-63		TAB	S.S.	(MCMASTER-CARR #97840A460)	2, 5
						1	2	B/O	-65		PAN HEAD MACHINE SCREW	S.S.	#10-32 X 5/16 (MCMASTER-CARR #91735A824)	2, 5
						1		B/O	-67		CLEVIS PIN	STEEL	Ø1/4 X 2-9/16 USABLE (MCMASTER-CARR #98306A173)	5
						2		B/O	-69		FLAT WASHER	STEEL	Ø1/4 AN-960-416	5
						1		B/O	-71		COTTER PIN	STEEL	Ø3/32 X 1/2 (MCMASTER-CARR #98338A130)	5
						8		B/O	-73		BUTTON HEAD CAP SCREW	STEEL	#10-32 X 1/4 (MCMASTER-CARR #91306A352)	5
							1	B/O	-75		QUICK RELEASE PIN	S.S.	ØM12 X 25mm USABLE (MCMASTER-CARR #93680A410)	2
				1				B/O	-77		ALL THREAD	S.S.	M6 X 1 X 30mm (MCMASTER-CARR #98863A255)	13
				1				B/O	-79		SLOTTED SPRING PIN	STEEL	M2 X 12mm (MCMASTER-CARR #91611A105)	2
							2	B/O	-81		BALL LOCK PIN	S.S.	Ø6mm X 1.18 USABLE (CARR LANE #CLM-6-BLPT-30-S)	2
							1	B/O	-83		BALL LOCK PIN T HANDLE	S.S	ØM8 X 20mm (CARR LANE #CLM-8-BLPT-20-S)	13
			1		1			B/O	-85		STUD-MOUNTED BALL TRANSFER	STEEL	Ø5/8 BALL (MCMASTER-CARR #6460K21)	9, 15
								B/O	-87	1	BOTTOM FOAM	ETHAFOAM 220, BLACK	7.26 X 16.29 X 28.44 (CASE SOLUTIONS)	27
								B/O	-89	1	LID FOAM	ETHAFOAM 220, BLACK	1.77 X 16.90 X 28.35 (CASE SOLUTIONS)	28
								B/O	-91	1	CASE	PLASTIC	PELICAN #APP-1670-E	N/S
									-93	1	INSIDE PLACARD	PLASTIC		29
1	1	1				1	4	B/O	-95		LANYARD	COATED STEEL	Ø1/16 X 12 (CARR LANE #CL-2-C)	N/S
2	2	2				2	8	B/O	-97		FERRULE	ALUMINUM	Ø1/16 X 3/8 (MCMASTER-CARR #3896T31)	2, 7, 19, 21, 23
						1		B/O	-99		REMOVE BEFORE FLIGHT	NYLON	NAS 1756-12	N/S
								B/O		1	PLACARD	ALUMINUM	RB41011	N/S
ASSY -41	ASSY -39	ASSY -35	ASSY -27	ASSY -23	ASSY -15	ASSY -7	ASSY -1							

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1		RELEASED FOR PRODUCTION.	7/14/2016	RJC	JAG
2	16-0174	**-3** CH'D DIM WAS (12.0000) IS 4.22, WAS 1.425 IS 1.43, WAS .960 IS 1.068, WAS 40° IS 43°; ADDED DIM FULL R; CH'D NOTE WAS INK STAMP "RBE7210U7107104-1" IS LASER ENGRAVE "RBE7210U7104-1". **-5** CH'D DIM WAS 1.185 IS 1.190; ADDED DIM 1.68, .30. **-19** ADDED DIM 3X .24. **-21** CH'D DIM WAS Ø.2370/.2368 THRU ALL S.F. -51 IS Ø.2376/.2371THRU ALL (S.F. -51), WAS 1/4-20 UNC-2B ↧ .75 IS 1/4-20 UNC-2B ↧ .5 ⌵ Ø.36 X 82°; ADDED DIM .03 X 45° TYP. **-23** ADDED FINISH, SPEC, & NOTE△. **-25** REMOVED FINISH & SPEC. **-29** CH'D DIM WAS .705 IS (.705); ADDED DIM 3X 3.16. **-31** ADDED DIM 3X .24. **-33** CH'D DIM WAS .2370/.2368 THRU ALL S.F. -53 IS .2376/.2371 THRU ALL (S.F. -53), WAS 1/4-20 UNC-2B ↧ .75 IS 1/4-20 UNC-2B ↧ .75 ⌵ Ø.39 X 90 °; ADDED DIM .03 X 45° TYP. **-37** ADDED "ENGRAVE T/N" NOTE; CH'D DIM WAS 2.125 IS (2.130), WAS .800 IS .83, WAS 5.05 IS 5.15; REMOVED DIM 1.886. **-41** ADDED "ENGRAVE T/N" NOTE; CH'D DIM WAS 2.125 IS (2.130), WAS .800 IS .83, WAS 5.05 IS 5.15; REMOVED DIM 1.886. **-45** ADDED "ENGRAVE T/N" NOTE; CH'D DIM WAS 1.99 IS 1.90, WAS 5.428 IS 5.43, WAS 12.0000 IS .75 WAS 183.2568° IS 9°; REMOVED DIM 12.0000, 12.0000, 5X R.03. **-87** CH'D DIM WAS 16.29 IS 16.90, WAS ↧ 6.09 IS ↧ 6.13, WAS 4.37 IS 3X 4.37, WAS ↧ 4.84 IS ↧ 4.99, WAS ↧ 3.81 IS ↧ 3.96, WAS ↧ 5.08 IS ↧ 5.18, WAS 2X 2.61 IS 2X 2.66, WAS 2X 3.61 IS 2X 3.56 WAS 4X 4.47 IS 2X 4.47; REMOVED DIM 2X 22.67, 2.34, 3.89; CH'D MATERIAL WAS Y20 BLACK IS ETHAFOAM 220, BLACK. **-89** CH'D MATERIAL WAS Y20 BLACK IS ETHAFOAM 220, BLACK. **-93** CH'D TEXT WAS GUAGE ASSEMBLY IS GAUGE ASSEMBLY, WAS RBEM821U7107104 IS RBEM721U7107104.	10/18/2016	SM	JAG



NOTE:
REF. AIRBUS T/N M721U7107104.

DART AEROSPACE

TITLE: ENGINE MOVING DEVICE

DWG NO. RBEM721U7107104 REV 2

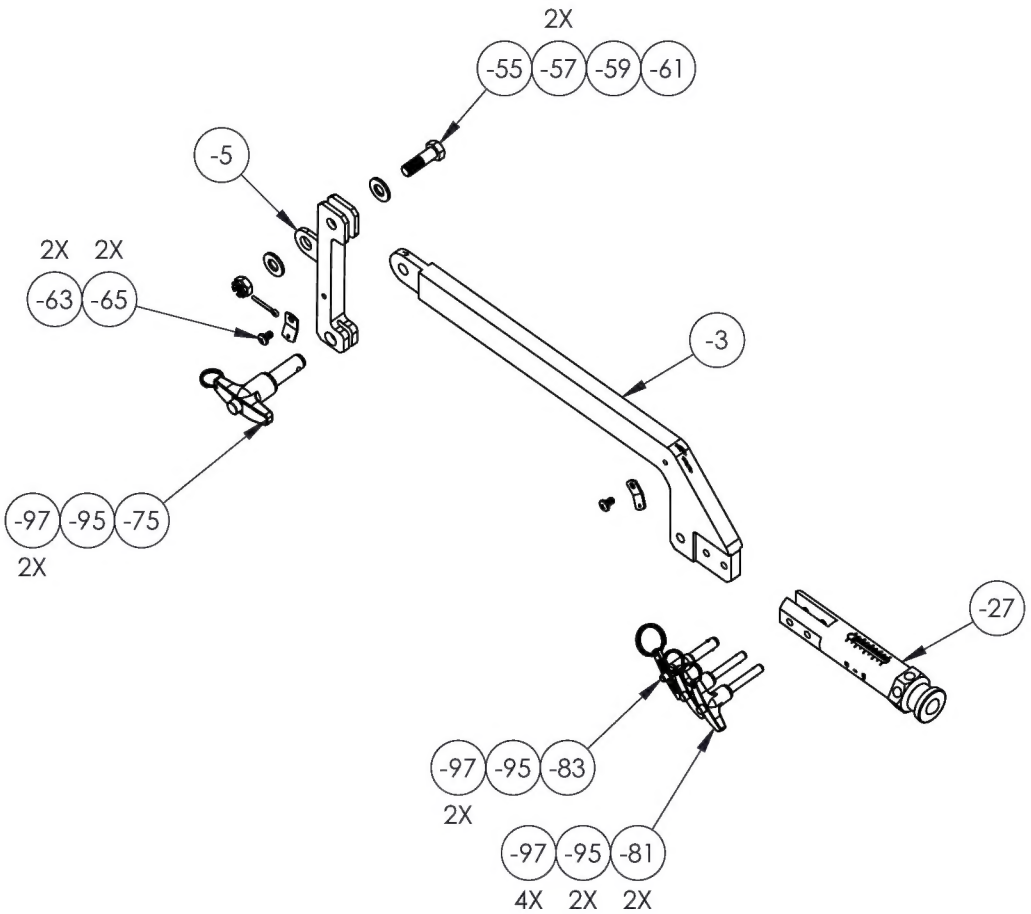
MAT'L	
HEAT TREAT	
FINISH	
SPEC	
DRAWN BY:	CLOUGH
CHECKED:	DUERFELDT
OPPS APPR:	ANDERSON
QA APPR:	LINDSAY
APPROVED:	GILBERT

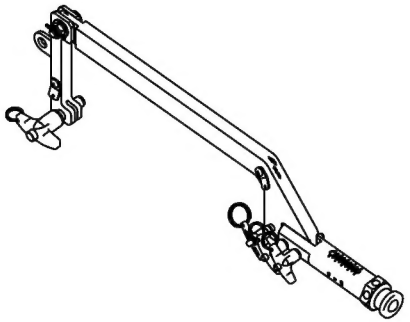
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
.XXX ± .005 FRACTIONS ± 1/8
.XX ± .01 ANGLES ±.5°
.X ± .1 SURFACES = 125
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING
3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009

USED ON MODEL: H175

SCALE 1:8 | DATE 3/17/2016 | SHEET 1 OF 29

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED





(-1)

LIFT ARM ASSY

DART AEROSPACE

TITLE: ENGINE MOVING DEVICE

DWG NO. RBEM721U7107104-1 REV 2

MAT'L	
HEAT TREAT	
FINISH	
SPEC	
DRAWN BY:	CLOUGH
CHECKED:	DUERFELDT
OPPS APPR:	ANDERSON
QA APPR:	LINDSAY
APPROVED:	GILBERT

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
.XXX ± .005 FRACTIONS ± 1/8
.XX ± .01 ANGLES ±.5°
.X ± .1 SURFACES = 125

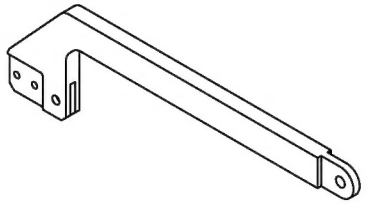
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING
3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009

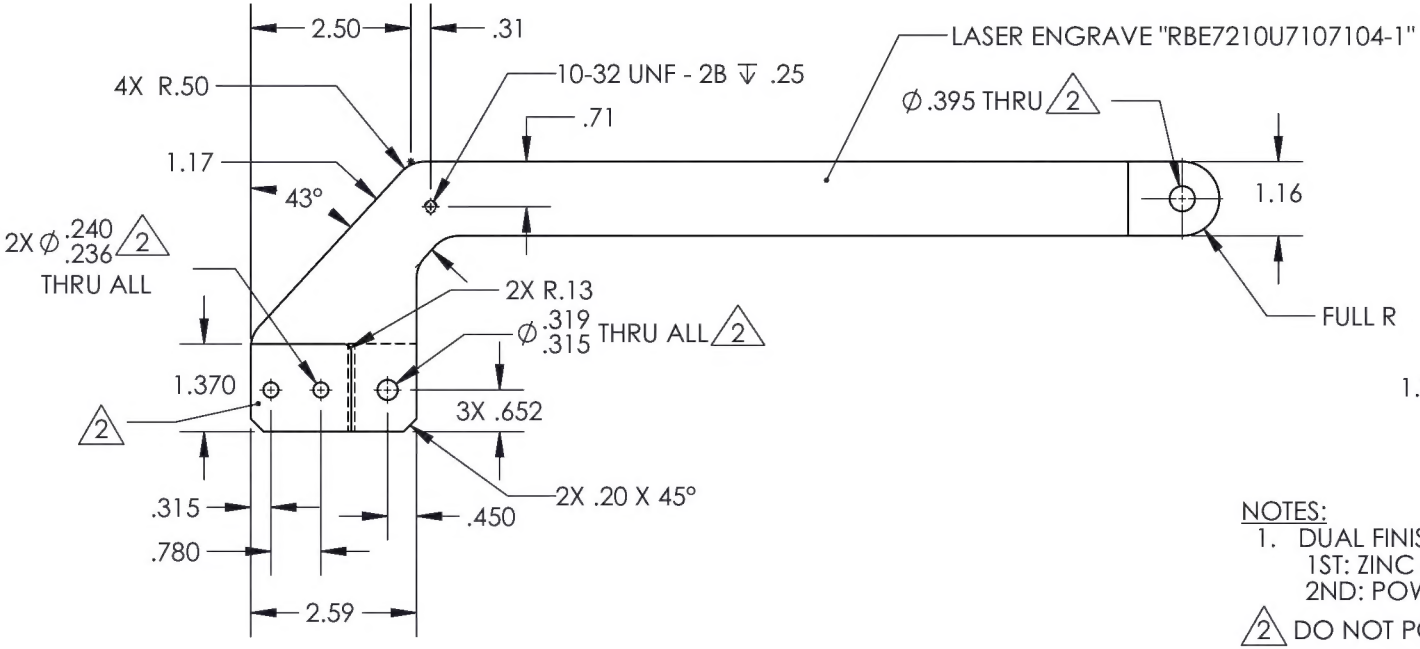
USED ON MODEL: H175

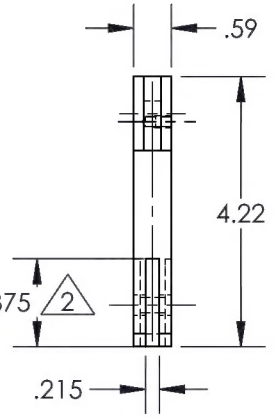
SCALE 1:6 | DATE 3/17/2016 | SHEET 2 OF 29

REVISIONS

REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	16-0174	**-3** CH'D DIM WAS (12.0000) IS 4.22, WAS 1.425 IS 1.43, WAS .960 IS 1.068, WAS 40° IS 43°; ADDED DIM FULL R; CH'D NOTE WAS INK STAMP "RBE7210U7107104-1" IS LASER ENGRAVE "RBE7210U7104-1".	10/18/2016	SM	JAG

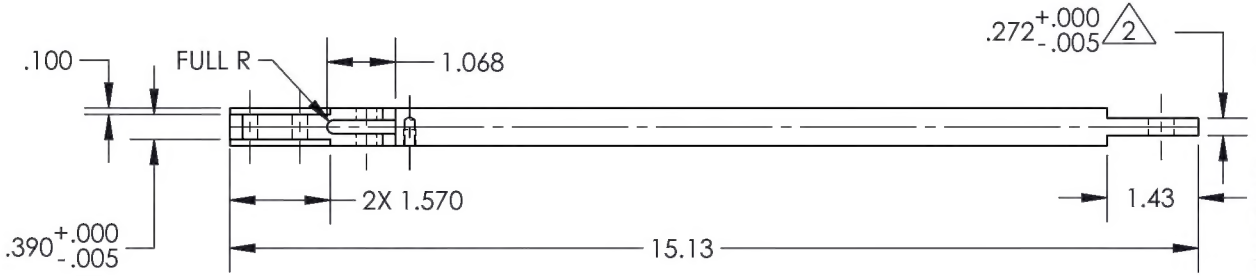






NOTES:
1. DUAL FINISH:
   1ST: ZINC PLATE, ASTM B633 TYPE I SC2.
   2ND: POWDER COAT YELLOW SPEC. FED#13538.

2 DO NOT POWDER COAT THIS SURFACE.



-3

LONG LIFT ARM

DART AEROSPACE

TITLE: ENGINE MOVING DEVICE

DWG NO. RBEM721U7107104-3 REV 2

MAT'L	1018/1020 CR
HEAT TREAT	
FINISH	SEE NOTE 1
SPEC	
DRAWN BY:	CLOUGH
CHECKED:	DUERFELDT
OPPS APPR:	ANDERSON
QA APPR:	LINDSAY
APPROVED:	GILBERT

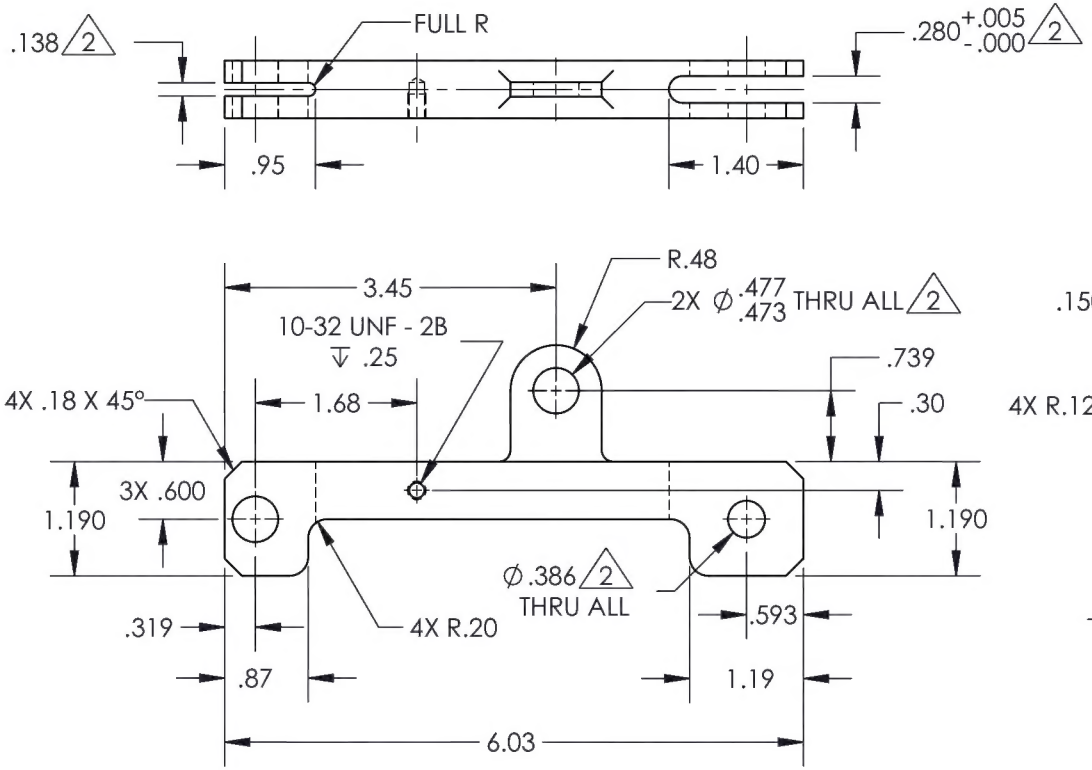
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
.XXX ± .005 FRACTIONS ± 1/8
.XX ± .01 ANGLES ±.5°
.X ± .1 SURFACES = 125

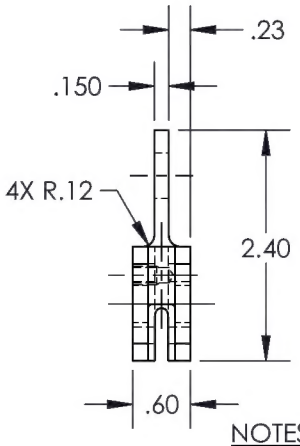
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING
3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009

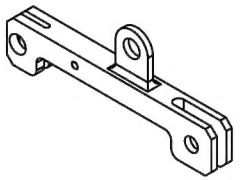
USED ON MODEL: H175

SCALE 1:3 DATE 3/17/2016 SHEET 3 OF 29

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	16-0174	**-5** CH'D DIM WAS 1.185 IS 1.190; ADDED DIM 1.68, .30.	10/18/2016	SM	JAG







NOTES:
1. DUAL FINISH:
   1ST: ZINC PLATE, ASTM B633 TYPE I SC2.
   2ND: POWDER COAT YELLOW SPEC. FED#13538.

2 DO NOT POWDER COAT THIS SURFACE.

-5

LIFT ARM

DART AEROSPACE

TITLE: ENGINE MOVING DEVICE

DWG NO. RBEM721U7107104-5 REV 2

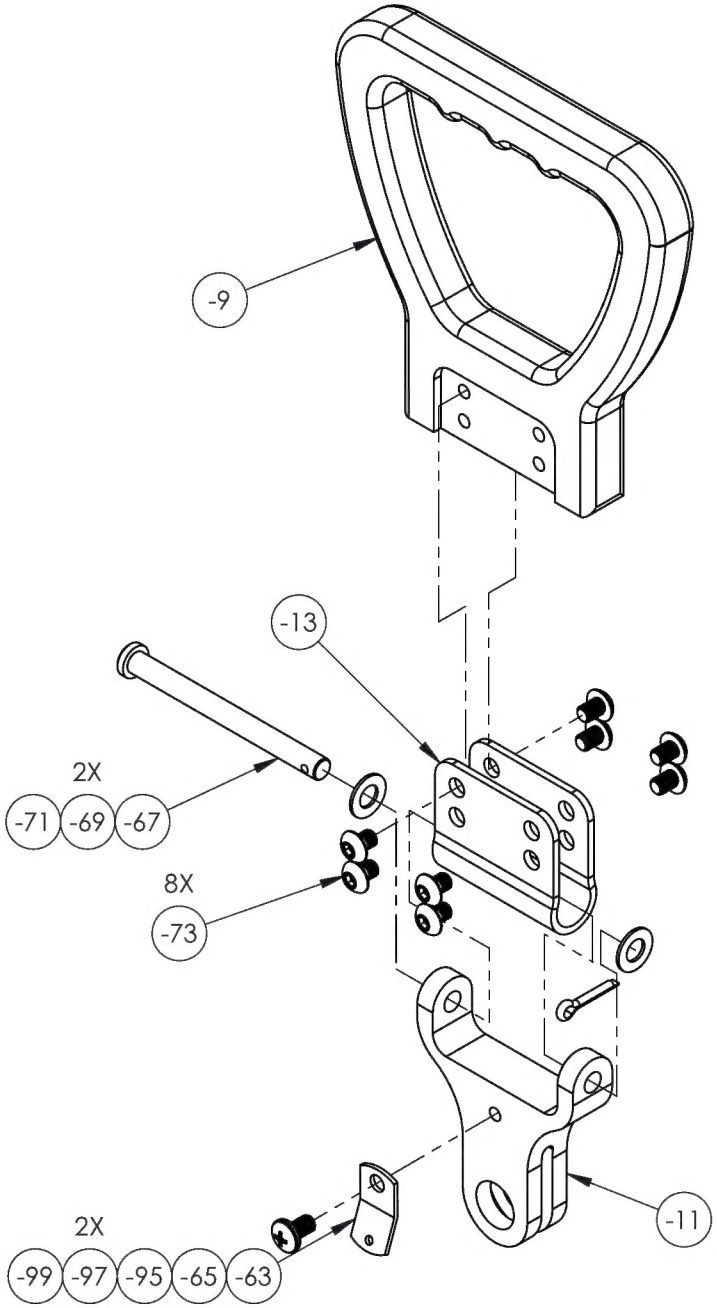
MAT'L	1018/1020 CR
HEAT TREAT	
FINISH	SEE NOTE 1
SPEC	
DRAWN BY:	CLOUGH
CHECKED:	DUERFELDT
OPPS APPR:	ANDERSON
QA APPR:	LINDSAY
APPROVED:	GILBERT

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
.XXX ± .005 FRACTIONS ± 1/8
.XX ± .01 ANGLES ±.5°
.X ± .1 SURFACES = 125
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING
3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009

USED ON MODEL: H175

SCALE 1:2 DATE 3/17/2016 SHEET 4 OF 29

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED



-7

HANDLE ASSY

DART AEROSPACE

TITLE: ENGINE MOVING DEVICE

DWG NO. RBEM721U7107104-7 REV 2

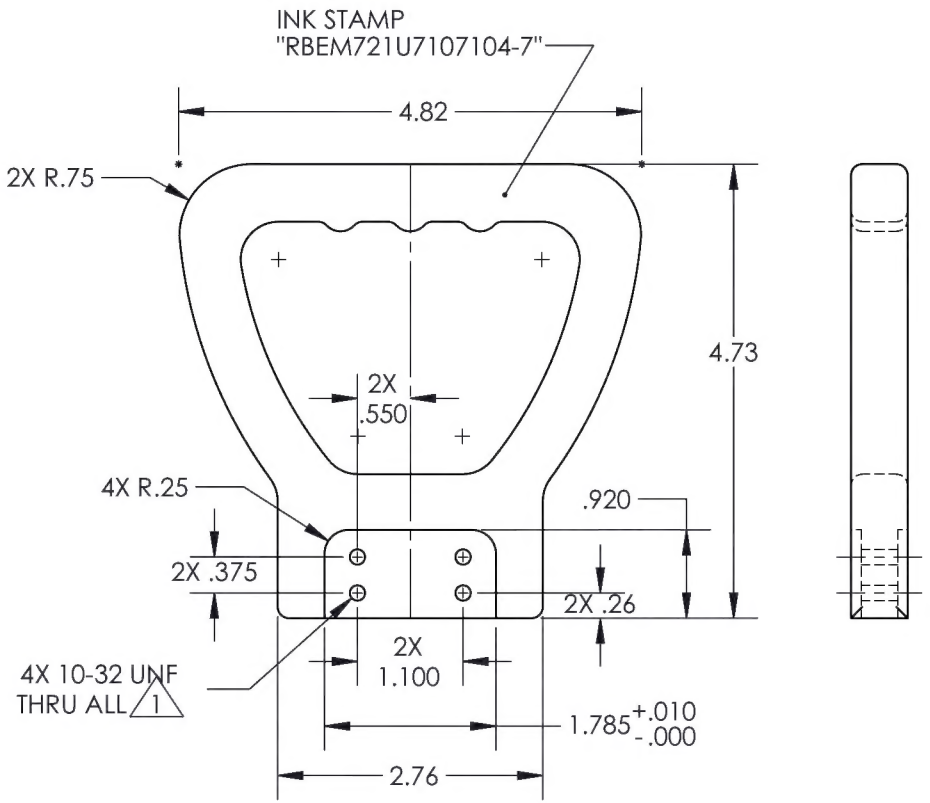
MAT'L	
HEAT TREAT	
FINISH	
SPEC	
DRAWN BY:	CLOUGH
CHECKED:	DUERFELDT
OPPS APPR:	ANDERSON
QA APPR:	LINDSAY
APPROVED:	GILBERT

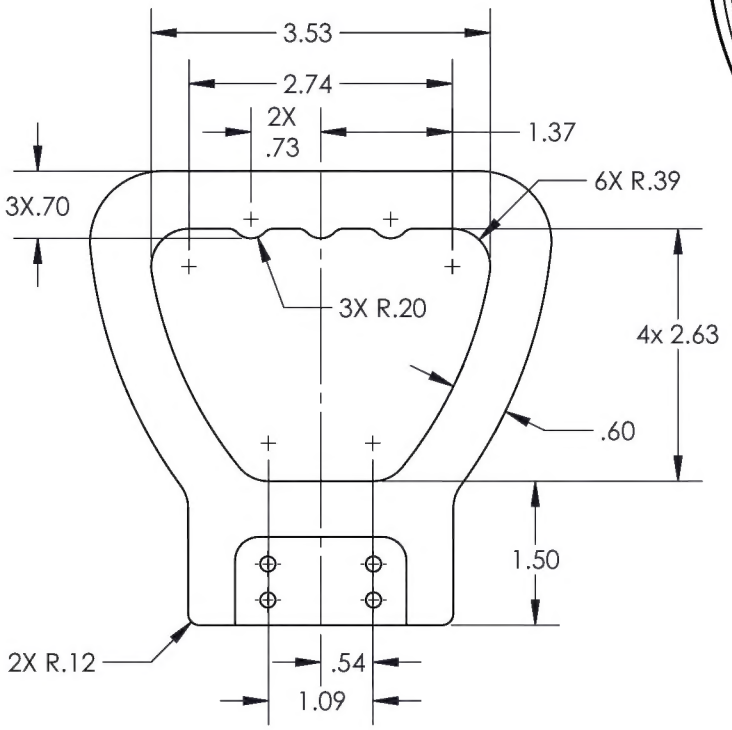
UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
.XXX ± .005 FRACTIONS ± 1/8
.XX ± .01 ANGLES ±.5°
.X ± .1 SURFACES = 125
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING
3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009

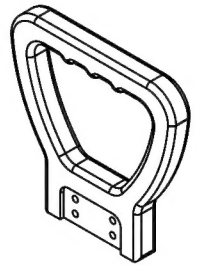
USED ON MODEL: H175

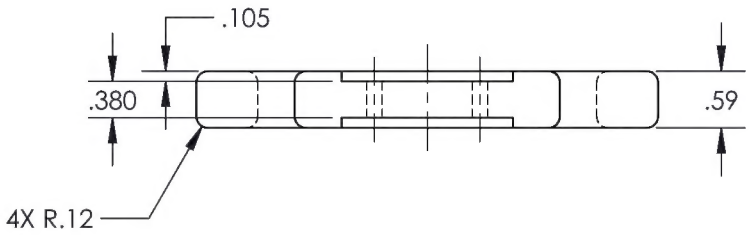
SCALE 1:2 | DATE 3/17/2016 | SHEET 5 OF 29

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED









-9

HANDLE

NOTE:

1 DO NOT POWDER COAT THREADS.

DART AEROSPACE

TITLE: ENGINE MOVING DEVICE

DWG NO. RBEM721U7107104-9 REV. ?

MAT'L	6061
HEAT TREAT	
FINISH	POWDER COAT YELLOW
SPEC	FED #13538
DRAWN BY:	CLOUGH
CHECKED:	DUERFELDT
OPPS APPR:	ANDERSON
QA APPR:	LINDSAY
APPROVED:	GILBERT

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
.XXX ± .010 FRACTIONS ± 1/8
.XX ± .03 ANGLES ±1°
.X ± .1 SURFACES = 125

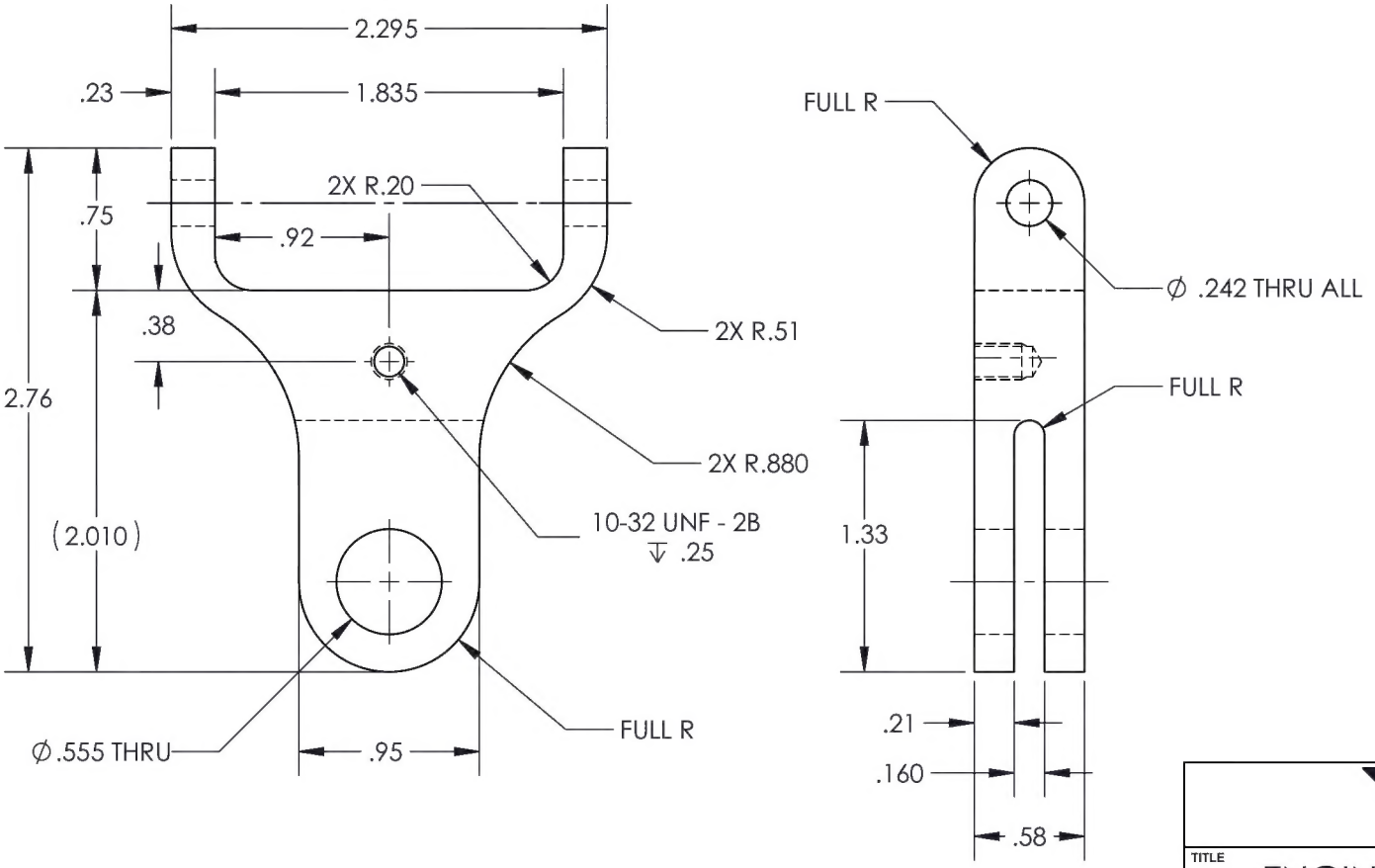
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING
3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009

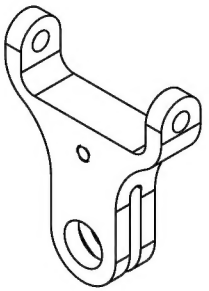
USED ON MODEL: H175

SCALE 1:2 | DATE 3/17/2016 | SHEET 6 OF 29

REVISIONS

REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	16-0174	**-11** REMOVED DIM R.03 TYP; ADDED HEAT TREAT.	10/18/2016	SM	JAG





(-11)

HANDLE PIVOT

DART AEROSPACE

TITLE: ENGINE MOVING DEVICE

DWG NO. RBEM721U7107104-11 REV. 2

MAT'L	4140/4142
HEAT TREAT	28-32
FINISH	POWDER COAT YELLOW
SPEC	FED #13538
DRAWN BY:	CLOUGH
CHECKED:	DUERFELDT
OPPS APPR:	ANDERSON
QA APPR:	LINDSAY
APPROVED:	GILBERT

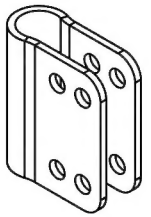
UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
.XXX ± .010 FRACTIONS ± 1/8
.XX ± .03 ANGLES ±1°
.X ± .1 SURFACES = 125

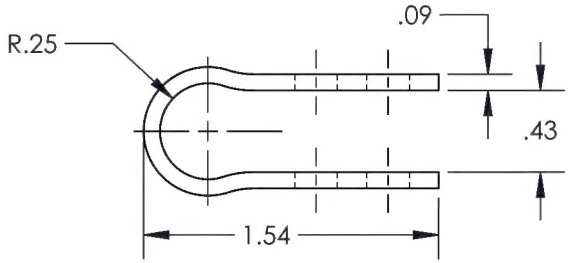
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING
3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009

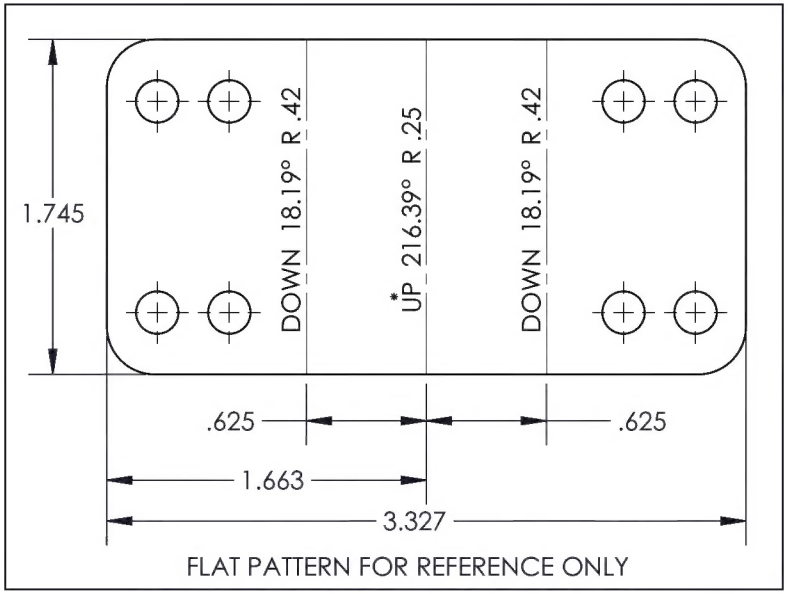
USED ON MODEL: H175

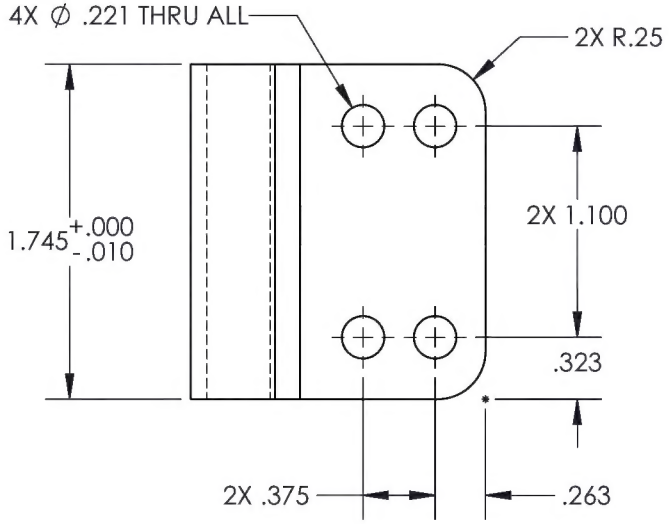
SCALE 1:1 DATE 3/17/2016 SHEET 7 OF 29

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED









(-13)

HANDLE HINGE

DART AEROSPACE

TITLE: ENGINE MOVING DEVICE

DWG NO. RBEM721U7107104-13 REV. ?

MAT'L	A36/1018/1020 HR
HEAT TREAT	
FINISH	POWDER COAT YELLOW
SPEC	FED #13538
DRAWN BY:	CLOUGH
CHECKED:	DUERFELDT
OPPS APPR:	ANDERSON
QA APPR:	LINDSAY
APPROVED:	GILBERT

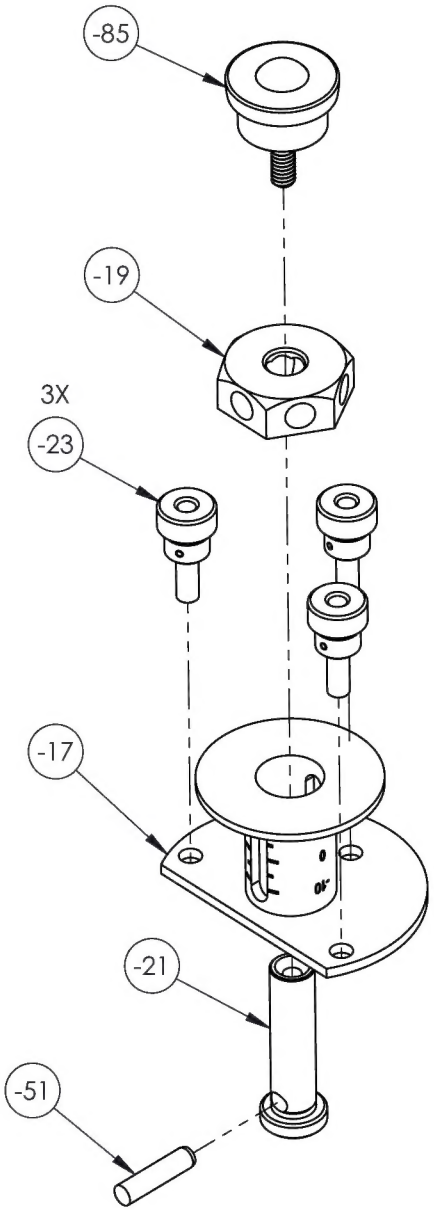
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
.XXX ± .010 FRACTIONS ± 1/8
.XX ± .03 ANGLES ±1°
.X ± .1 SURFACES = 125

1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING
3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009

USED ON MODEL: H175

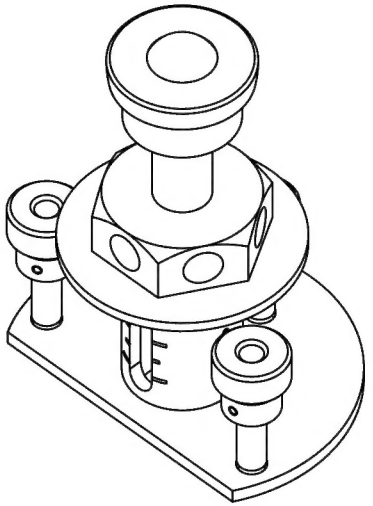
SCALE 1:1 | DATE 3/17/2016 | SHEET 8 OF 29

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED



(-15)

GUAGE ASSY



DART AEROSPACE

TITLE: ENGINE MOVING DEVICE

DWG NO. RBEM721U7107104-15 REV. ?

MAT'L	
HEAT TREAT	
FINISH	
SPEC	
DRAWN BY:	CLOUGH
CHECKED:	DUERFELDT
OPPS APPR:	ANDERSON
QA APPR:	LINDSAY
APPROVED:	GILBERT

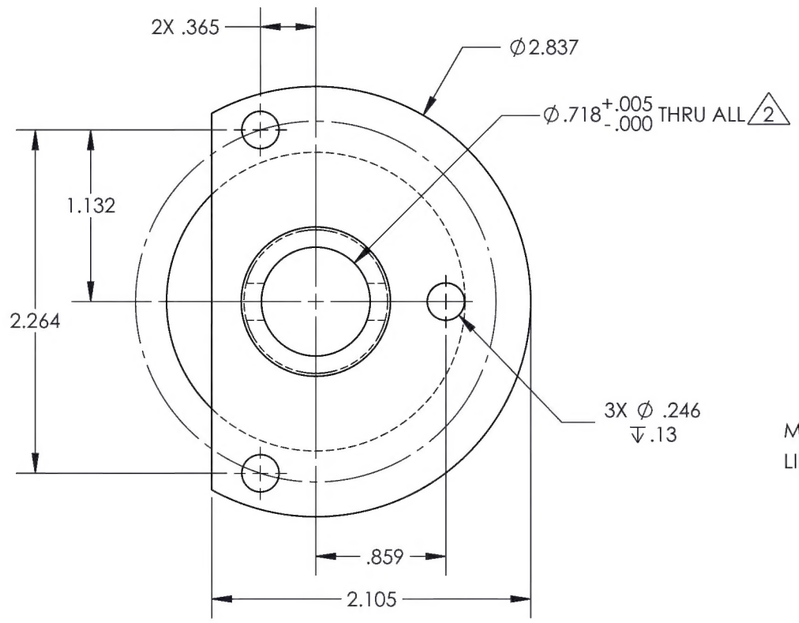
UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
.XXX ± .010 FRACTIONS ± 1/8
.XX ± .03 ANGLES ±1°
.X ± .1 SURFACES = 125

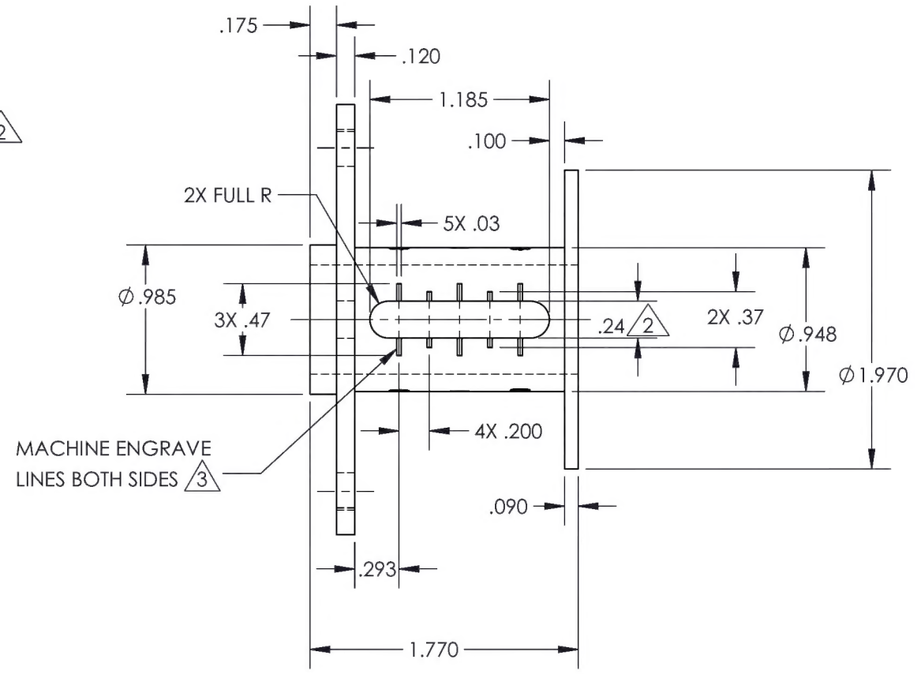
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING
3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009

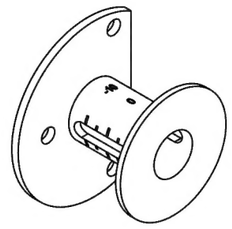
USED ON MODEL: H175

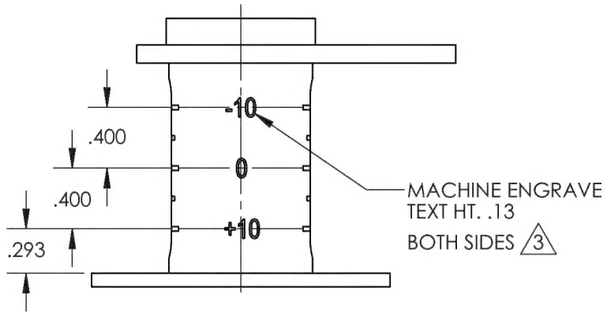
SCALE 1:1.5 | DATE 3/17/2016 | SHEET 9 OF 29

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED









HIDDEN LINE REMOVED
FOR CLARITY THIS VIEW

-17

GAUGE

NOTES:
1. DUAL FINISH:
   1ST: ZINC PLATE, ASTM B633 TYPE I SC2.
   2ND: POWDER COAT YELLOW SPEC. FED#13538.

2 DO NOT POWDER COAT THIS SURFACE.

3 FILL IN TEXT & LINES WITH BLACK PAINT.

DART AEROSPACE

TITLE: ENGINE MOVING DEVICE

DWG NO. RBEM721U7107104-17 REV 2

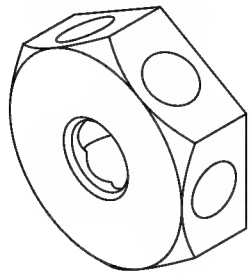
MAT'L	1018/1020 CR
HEAT TREAT	
FINISH	SEE NOTE 1
SPEC	
DRAWN BY:	CLOUGH
CHECKED:	DUERFELDT
OPPS APPR:	ANDERSON
QA APPR:	LINDSAY
APPROVED:	GILBERT

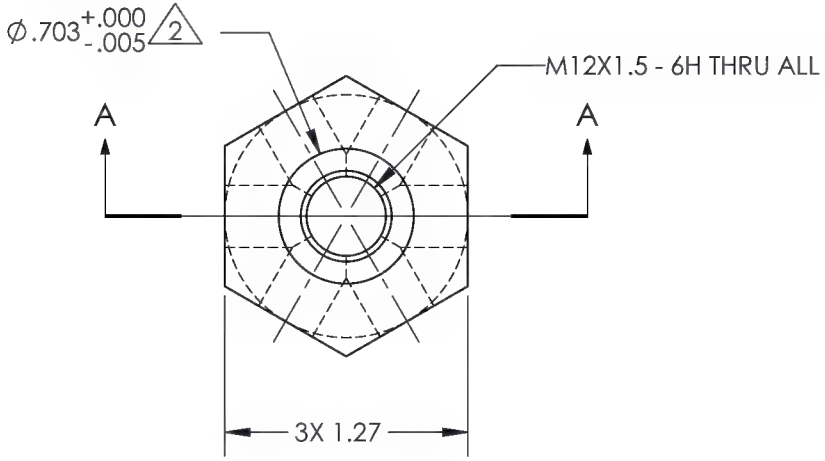
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
.XXX ± .005 FRACTIONS ± 1/8
.XX ± .01 ANGLES ±.5°
.X ± .1 SURFACES = 125
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING
3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009

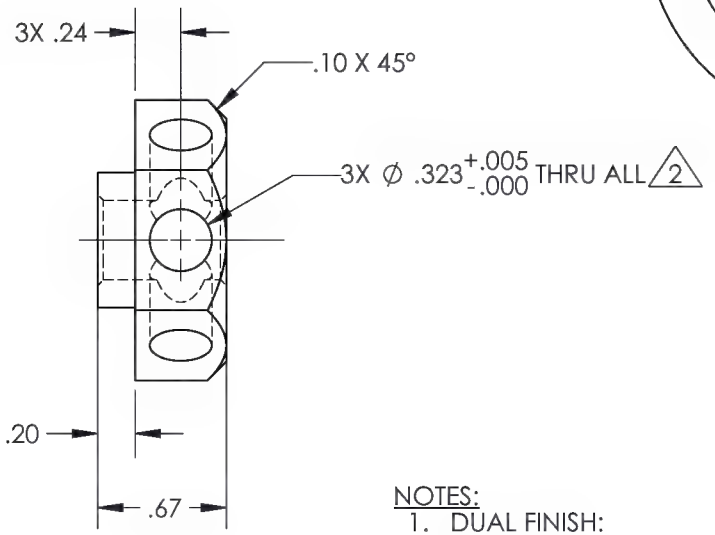
USED ON MODEL: H175

SCALE 1:1 | DATE 3/17/2016 | SHEET 10 OF 29

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	16-0174	**-19** ADDED DIM 3X .24.	10/18/2016	SM	JAG

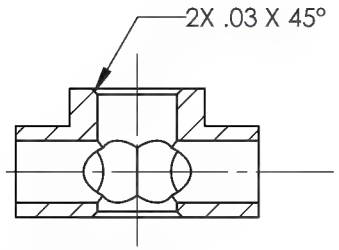






NOTES:
1. DUAL FINISH:
   1ST: ZINC PLATE, ASTM B633 TYPE I SC2.
   2ND: POWDER COAT YELLOW SPEC. FED#13538.

2 DO NOT POWDER COAT THIS SURFACE.



SECTION A-A

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NUT 423

DART AEROSPACE

TITLE: ENGINE MOVING DEVICE

DWG NO. RBEM721U7107104-19 REV 2

MAT'L	1018/1020 CR
HEAT TREAT	
FINISH	SEE NOTE 1
SPEC	
DRAWN BY:	CLOUGH
CHECKED:	DUERFELDT
OPPS APPR:	ANDERSON
QA APPR:	LINDSAY
APPROVED:	GILBERT

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
.XXX ± .005 FRACTIONS ± 1/8
.XX ± .01 ANGLES ±.5°
.X ± .1 SURFACES = 125

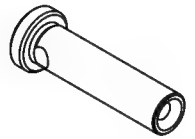
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING
3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009

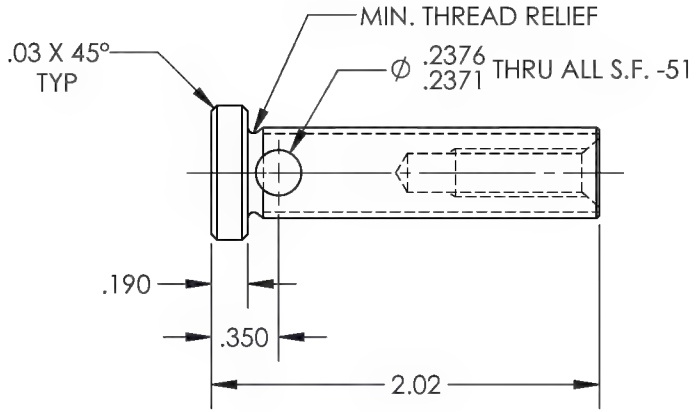
USED ON MODEL: H175

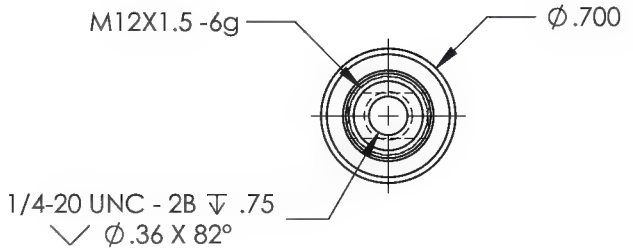
SCALE 1:1 | DATE 3/17/2016 | SHEET 11 OF 29

REVISIONS

REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	16-0174	**-21** CH'D DIM WAS Ø.2370/.2368 THRU ALL S.F. -51 IS Ø.2376/.2371THRU ALL (S.F. -51), WAS 1/4-20 UNC-2B ↧ .75 IS 1/4-20 UNC-2B ↧ .5 ⌵ Ø.36 X 82°; ADDED DIM .03 X 45° TYP.	10/18/2016	SM	JAG







(-21)

GAUGE PIN

DART AEROSPACE

TITLE: ENGINE MOVING DEVICE

DWG NO. RBEM721U7107104-21 REV 2

MAT'L	1018/1020 CR
HEAT TREAT	
FINISH	ZINC PLATE
SPEC	ASTM B633 TYPE I SC 2
DRAWN BY:	CLOUGH
CHECKED:	DUERFELDT
OPPS APPR:	ANDERSON
QA APPR:	LINDSAY
APPROVED:	GILBERT

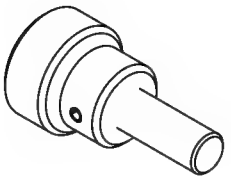
UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
.XXX ± .005 FRACTIONS ± 1/8
.XX ± .01 ANGLES ±.5°
.X ± .1 SURFACES = 125 ✓

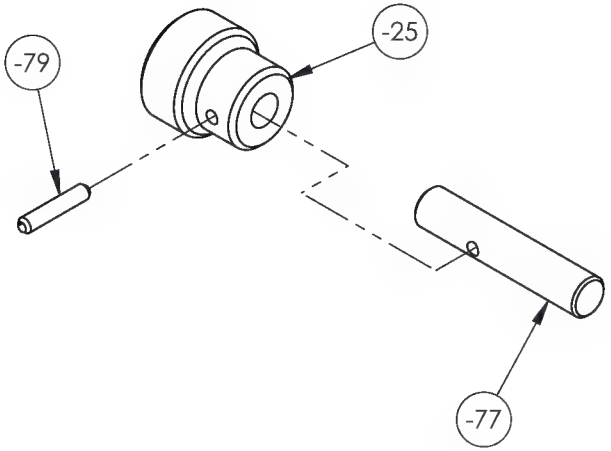
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING
3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009

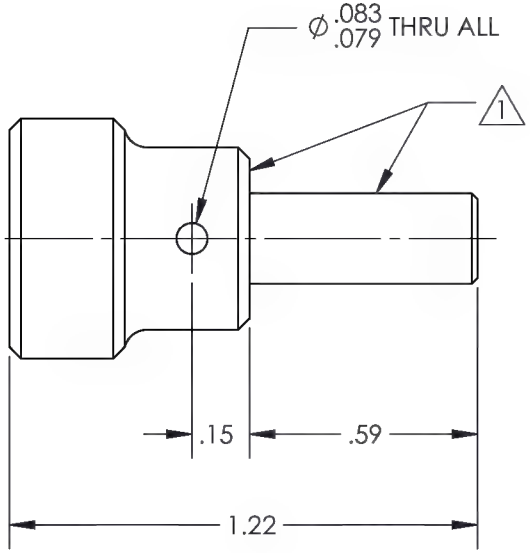
USED ON MODEL: H175

SCALE 1:1 | DATE 3/17/2016 | SHEET 12 OF 29

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	16-0174	**-23** ADDED FINISH, SPEC, & NOTE⚠1.	10/18/2016	SM	JAG







NOTE:

⚠1 NO POWDER COAT ON SURFACE.

DART AEROSPACE

TITLE: ENGINE MOVING DEVICE

DWG NO. RBEM721U7107104-23 REV 2

MAT'L	
HEAT TREAT	
FINISH	POWDER COAT YELLOW
SPEC	FED #13538
DRAWN BY:	CLOUGH
CHECKED:	DUERFELDT
OPPS APPR:	ANDERSON
QA APPR:	LINDSAY
APPROVED:	GILBERT

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
.XXX ± .005 FRACTIONS ± 1/8
.XX ± .01 ANGLES ±.5°
.X ± .1 SURFACES = 125√

1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING
3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009

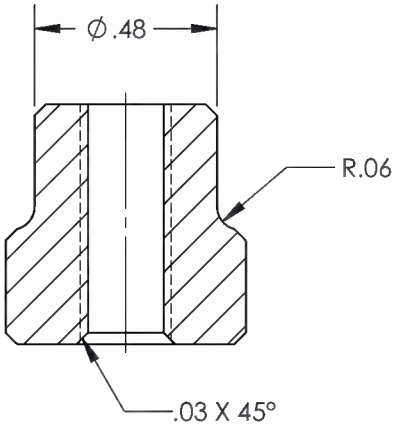
USED ON MODEL: H175

SCALE 2:1 | DATE 3/17/2016 | SHEET 13 OF 29

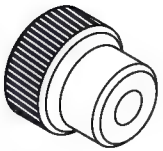
(-23)

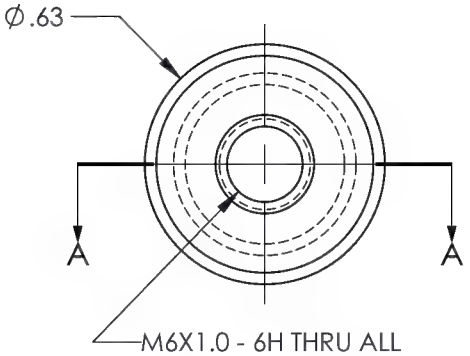
GAUGE KNOB ASSY

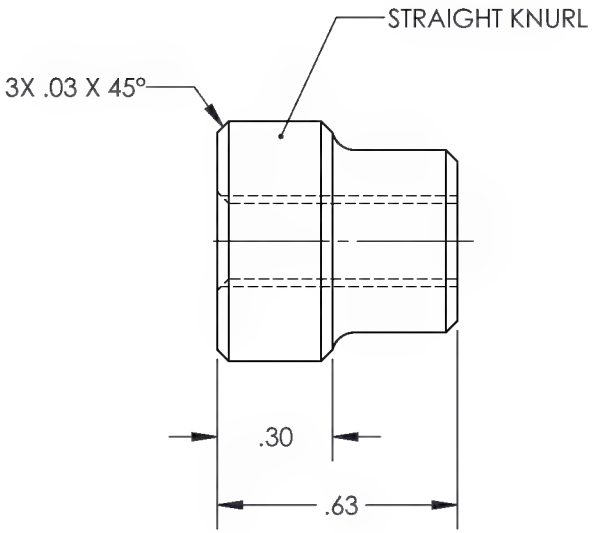
REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	16-0174	**-25** REMOVED FINISH & SPEC.	10/18/2016	SM	JAG



SECTION A-A







-25

GAUGE KNOB

DART AEROSPACE

TITLE: ENGINE MOVING DEVICE

DWG NO. RBEM721U7107104-25 REV 2

MAT'L	A36/1018/1020 HR
HEAT TREAT	
FINISH	
SPEC	
DRAWN BY:	CLOUGH
CHECKED:	DUERFELDT
OPPS APPR:	ANDERSON
QA APPR:	LINDSAY
APPROVED:	GILBERT

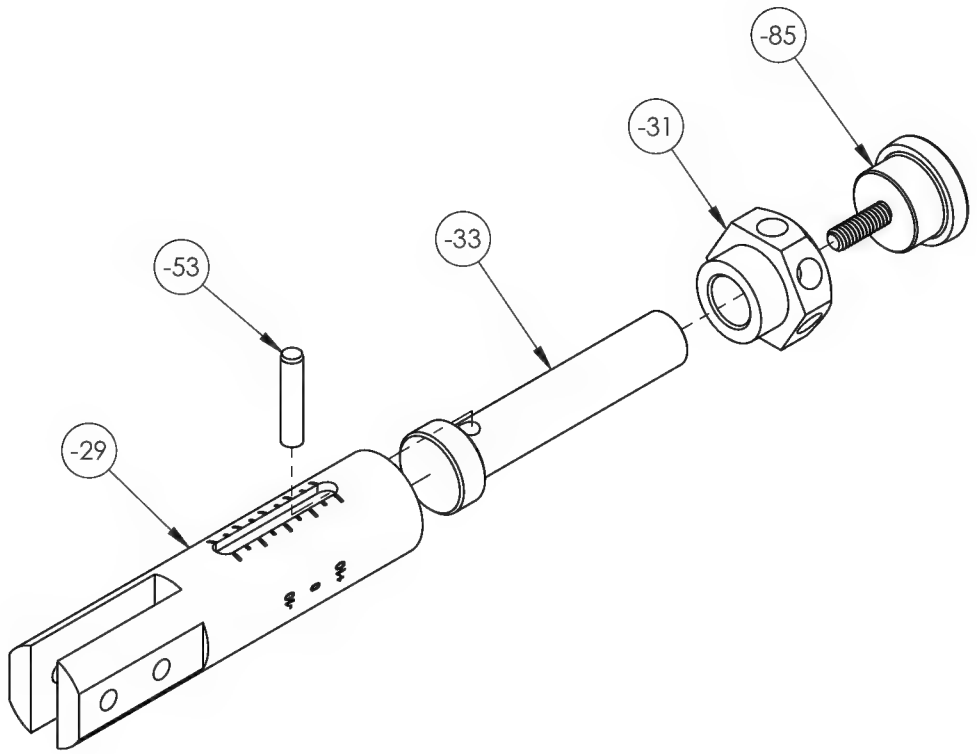
UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
.XXX ± .005 FRACTIONS ± 1/8
.XX ± .01 ANGLES ±.5°
.X ± .1 SURFACES = 125

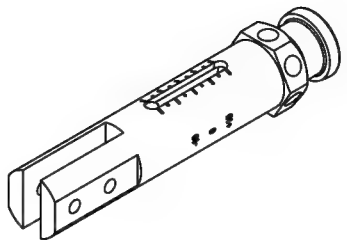
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING
3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009

USED ON MODEL: H175

SCALE 2:1 | DATE 3/17/2016 | SHEET 14 OF 29

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED





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LONGER GUAGE ASSY

DART AEROSPACE

TITLE: ENGINE MOVING DEVICE

DWG NO. RBEM721U7107104-27 REV 2

MAT'L	
HEAT TREAT	
FINISH	
SPEC	
DRAWN BY:	CLOUGH
CHECKED:	DUERFELDT
OPPS APPR:	ANDERSON
QA APPR:	LINDSAY
APPROVED:	GILBERT

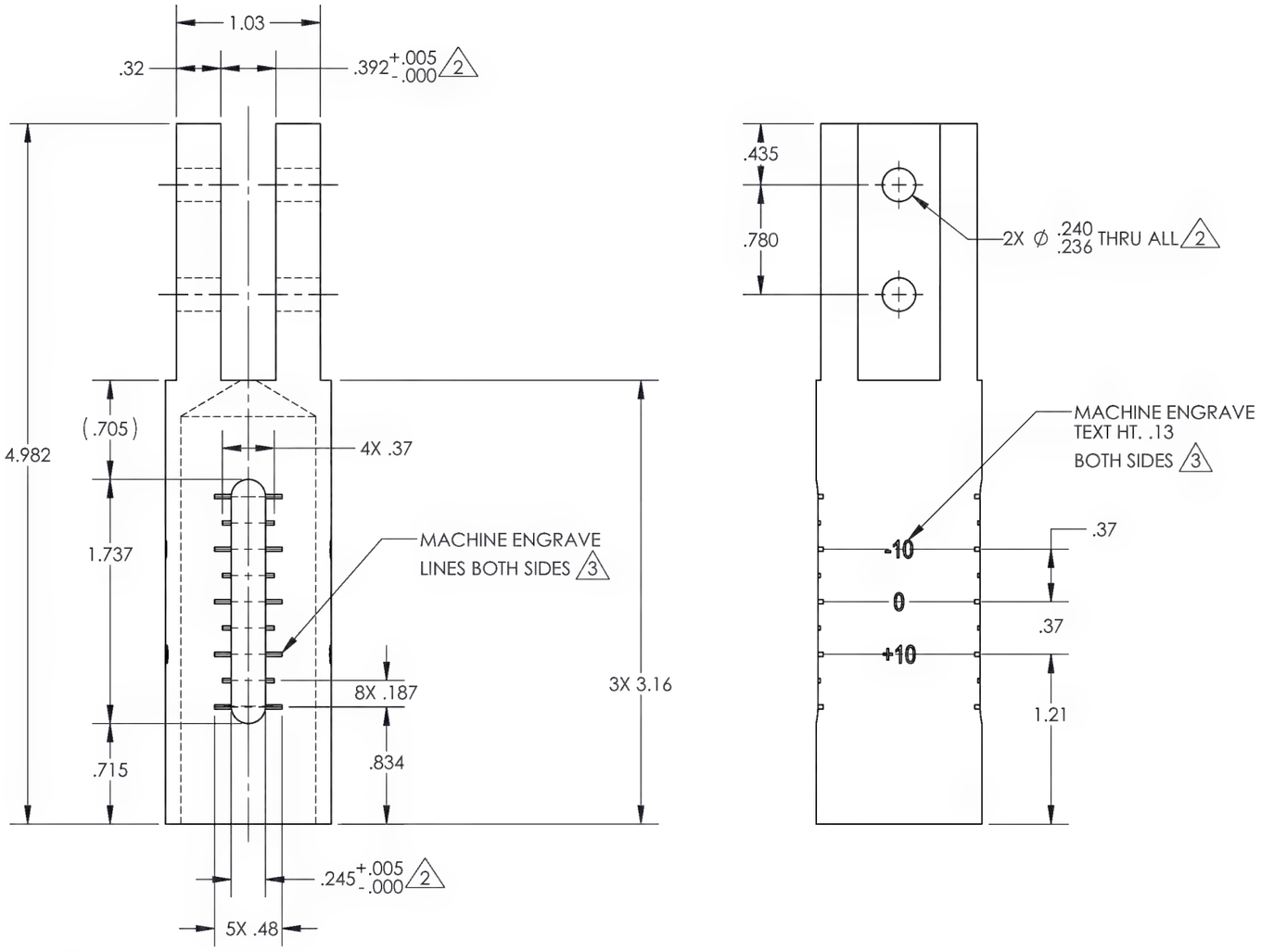
UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
.XXX ± .005 FRACTIONS ± 1/8
.XX ± .01 ANGLES ±.5°
.X ± .1 SURFACES = 125

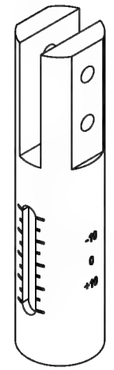
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING
3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009

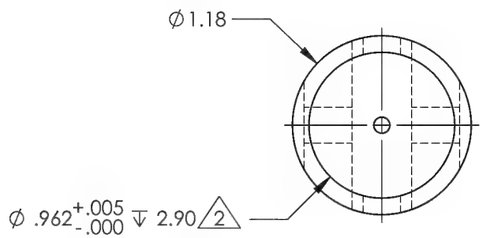
USED ON MODEL: H1758

SCALE 1:2 | DATE 3/17/2016 | SHEET 15 OF 29

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	16-0174	**-29** CH'D DIM WAS .705 IS (.705); ADDED DIM 3X 3.16.	10/18/2016	SM	JAG







-29

LONGER GAUGE

NOTES:
1. DUAL FINISH:
   1ST: ZINC PLATE, ASTM B633 TYPE I SC2.
   2ND: POWDER COAT YELLOW SPEC. FED#13538.

2 DO NOT POWDER COAT THIS SURFACE.

3 FILL IN TEXT & LINES WITH BLACK PAINT.

DART AEROSPACE

TITLE: ENGINE MOVING DEVICE

DWG NO. RBEM721U7107104-29 REV 2

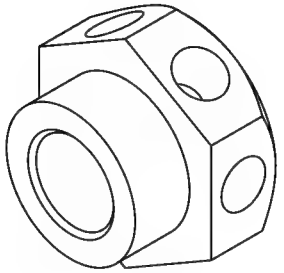
MAT'L	1018/1020 CR
HEAT TREAT	
FINISH	SEE NOTE 1
SPEC	
DRAWN BY:	CLOUGH
CHECKED:	DUERFELDT
OPPS APPR:	ANDERSON
QA APPR:	LINDSAY
APPROVED:	GILBERT
SCALE	1:1
DATE	3/17/2016

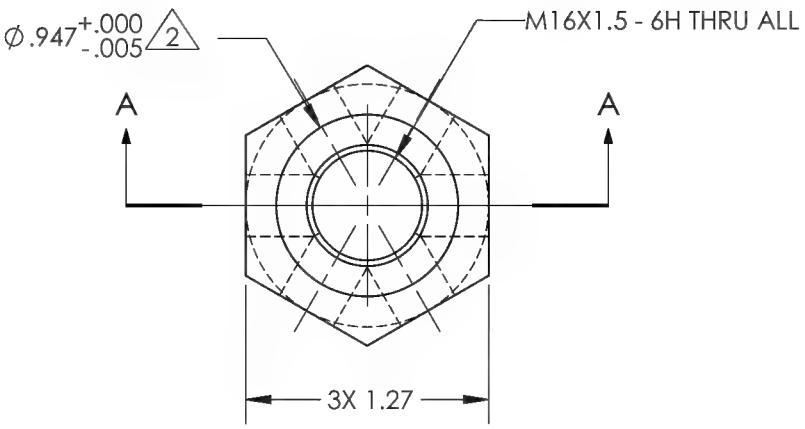
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
.XXX ± .005 FRACTIONS ± 1/8
.XX ± .01 ANGLES ±.5°
.X ± .1 SURFACES = 125 √
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING
3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009

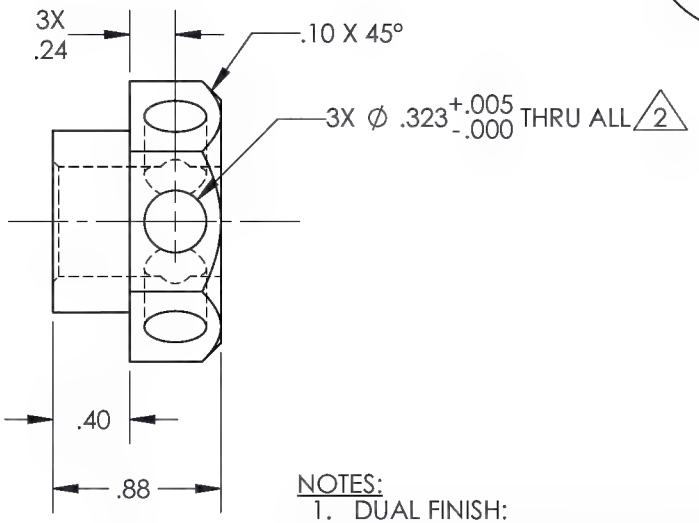
USED ON MODEL: H175

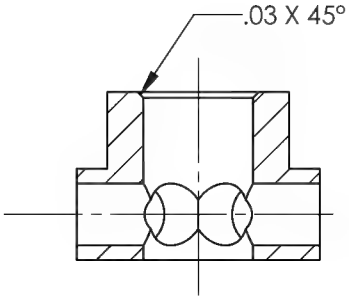
SHEET 16 OF 29

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	16-0174	**-31** ADDED DIM 3X .24.	10/18/2016	SM	JAG









SECTION A-A

NOTES:
1. DUAL FINISH:
   1ST: ZINC PLATE, ASTM B633 TYPE I SC2.
   2ND: POWDER COAT YELLOW SPEC. FED#13538.

2 DO NOT POWDER COAT THIS SURFACE.

DART AEROSPACE

TITLE: ENGINE MOVING DEVICE

DWG NO. RBEM721U7107104-31 REV 2

MAT'L	1018/1020 CR
HEAT TREAT	
FINISH	SEE NOTE 1
SPEC	
DRAWN BY:	CLOUGH
CHECKED:	DUERFELDT
OPPS APPR:	ANDERSON
QA APPR:	LINDSAY
APPROVED:	GILBERT

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
.XXX ± .005 FRACTIONS ± 1/8
.XX ± .01 ANGLES ±.5°
.X ± .1 SURFACES = 125

1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING
3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009

USED ON MODEL: H175

SCALE 1:1 | DATE 3/17/2016 | SHEET 17 OF 29

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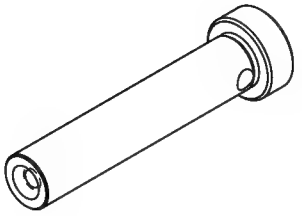
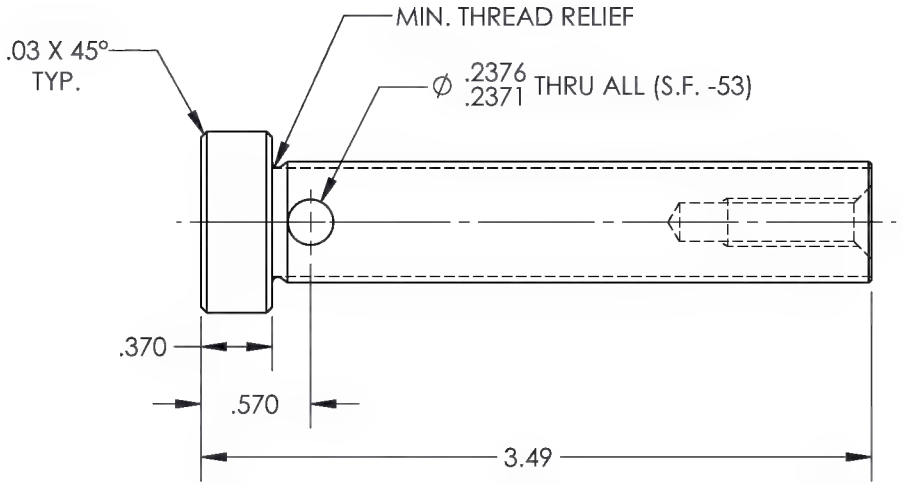
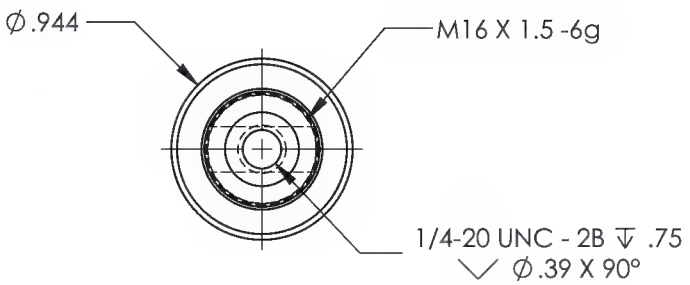
NUT 325

REVISIONS

REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	16-0174	**-33** CH'D DIM WAS .2370/.2368 THRU ALL S.F. -53 IS .2376/.2371 THRU ALL (S.F. -53), WAS 1/4-20 UNC-2B ↧ .75 IS 1/4-20 UNC-2B ↧ .75 ⌵ Ø.39 X 90 °; ADDED DIM .03 X 45° TYP.	10/18/2016	SM	JAG







(-33)

LONGER GAUGE PIN

DART AEROSPACE

TITLE: ENGINE MOVING DEVICE

DWG NO. RBEM721U7107104-33 REV 2

MAT'L	1018/1020 CR
HEAT TREAT	
FINISH	ZINC PLATE
SPEC	ASTM B633 TYPE I SC 2
DRAWN BY:	CLOUGH
CHECKED:	DUERFELDT
OPPS APPR:	ANDERSON
QA APPR:	LINDSAY
APPROVED:	GILBERT

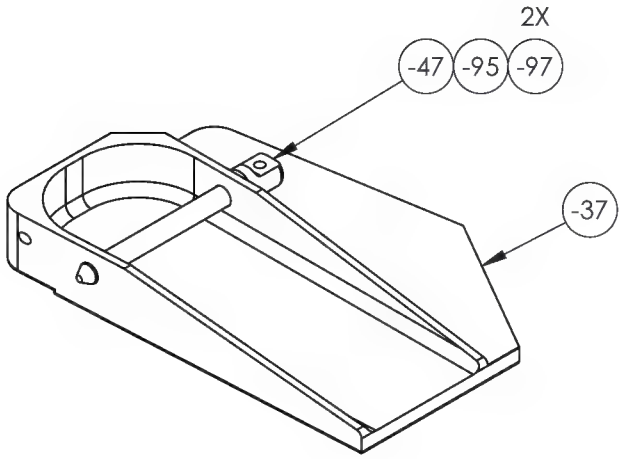
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
.XXX ± .005 FRACTIONS ± 1/8
.XX ± .01 ANGLES ±.5°
.X ± .1 SURFACES = 125 ⌵

1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING
3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009

USED ON MODEL: H175

SCALE 1:1 | DATE 3/17/2016 | SHEET 18 OF 29

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED



-35

WEDGE ASSY

DART AEROSPACE

TITLE

ENGINE MOVING DEVICE

DWG NO.	REV
RBEM721U7107104-35	2

MAT'L	
HEAT TREAT	
FINISH	
SPEC	
DRAWN BY:	CLOUGH
CHECKED:	DUERFELDT
OPPS APPR:	ANDERSON
QA APPR:	LINDSAY
APPROVED:	GILBERT

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
.XXX ± .005 FRACTIONS ± 1/8
.XX ± .01 ANGLES ±.5°
.X ± .1 SURFACES = 125

1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING
3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009

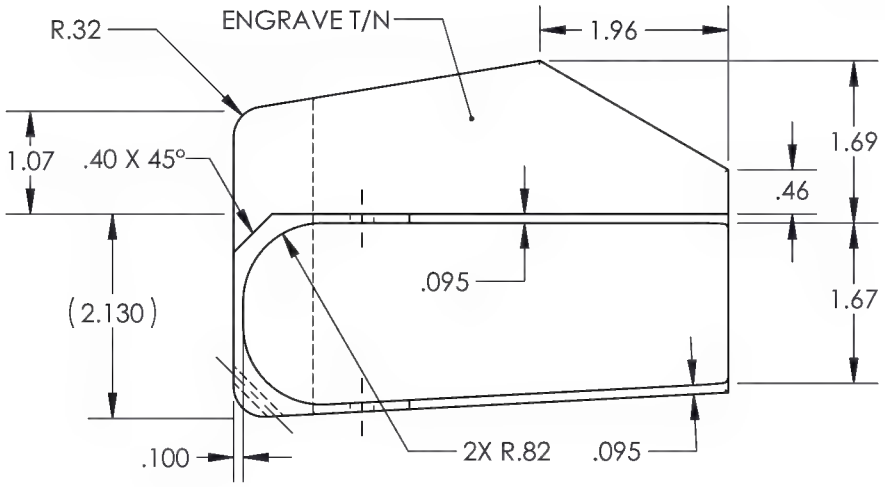
USED ON MODEL

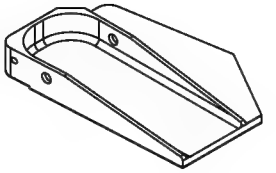
H175

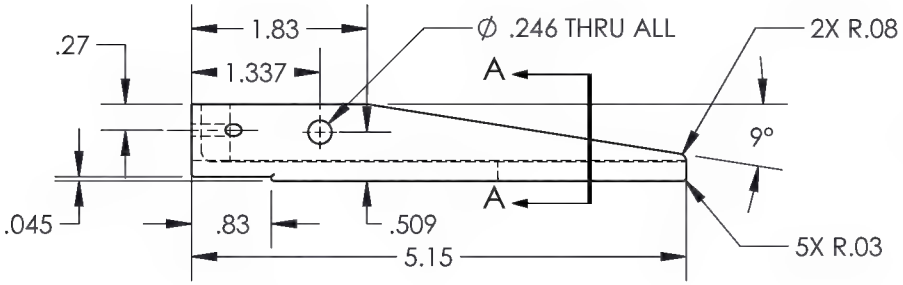
SCALE	DATE	SHEET
1:2	3/17/2016	SHEET 19 OF 29

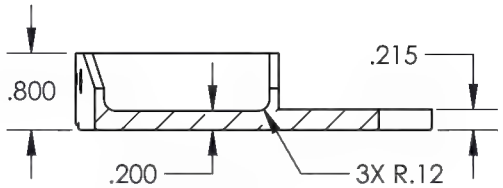
REVISIONS

REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	16-0174	**-37** ADDED "ENGRAVE T/N" NOTE; CH'D DIM WAS 2.125 IS (2.130), WAS .800 IS .83, WAS 5.05 IS 5.15; REMOVED DIM 1.886.	10/18/2016	SM	JAG

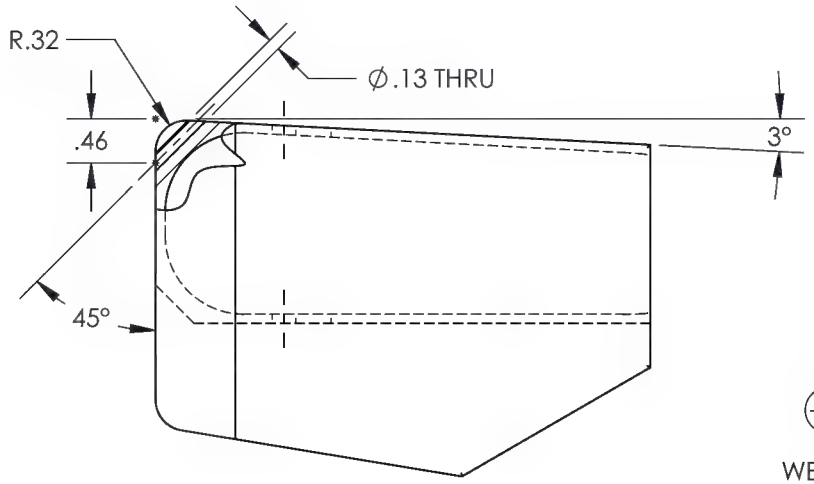








SECTION A-A



(-37)

WEDGE

DART AEROSPACE

TITLE: ENGINE MOVING DEVICE

DWG NO. RBEM721U7107104-37 REV 2

MAT'L	6061
HEAT TREAT	
FINISH	BLACK ANODIZE
SPEC	MIL-A-8625F, TYPE II, CLASS II
DRAWN BY:	CLOUGH
CHECKED:	DUERFELDT
OPPS APPR:	ANDERSON
QA APPR:	LINDSAY
APPROVED:	GILBERT

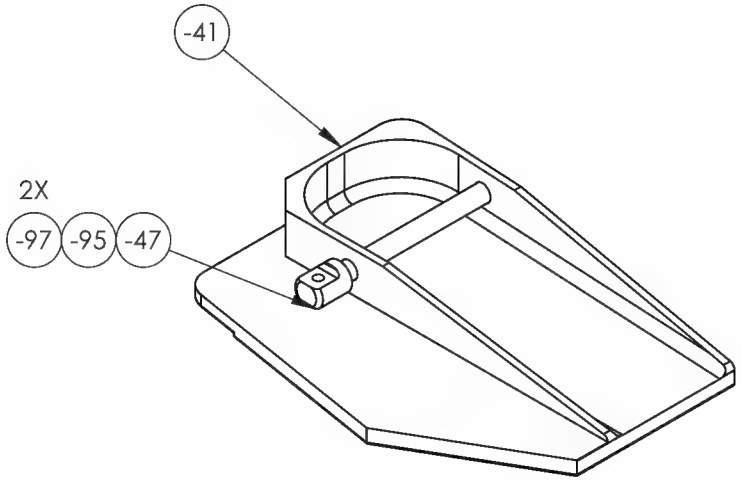
UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
.XXX ± .005 FRACTIONS ± 1/8
.XX ± .01 ANGLES ±.5°
.X ± .1 SURFACES = 125

1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING
3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009

USED ON MODEL: H175

SCALE 1:2 DATE 3/17/2016 SHEET 20 OF 29

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED



-39

MIRRORED WEDGE ASSY

DART AEROSPACE

TITLE

ENGINE MOVING DEVICE

DWG NO.	REV
RBEM721U7107104-39	2

MAT'L	
HEAT TREAT	
FINISH	
SPEC	
DRAWN BY:	CLOUGH
CHECKED:	DUERFELDT
OPPS APPR:	ANDERSON
QA APPR:	LINDSAY
APPROVED:	GILBERT

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
.XXX ± .005 FRACTIONS ± 1/8
.XX ± .01 ANGLES ±.5°
.X ± .1 SURFACES = 125

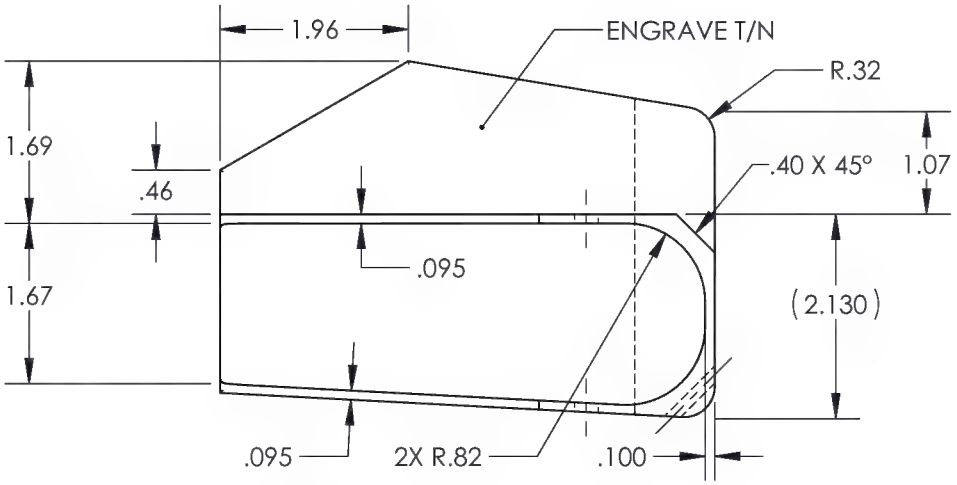
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING
3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009

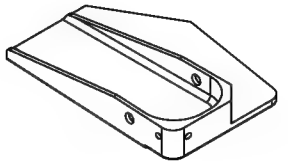
USED ON MODEL: H175

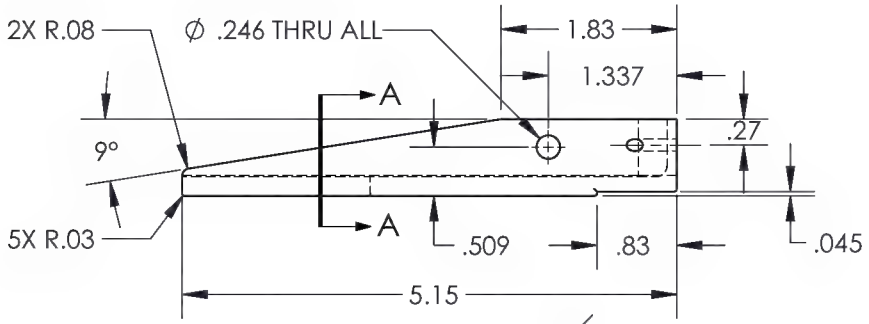
SCALE	DATE	SHEET
1:2	3/17/2016	SHEET 21 OF 29

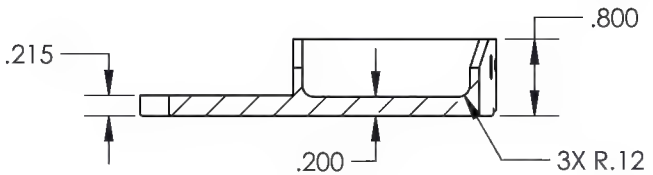
REVISIONS

REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	16-0174	**-41** ADDED "ENGRAVE T/N" NOTE; CH'D DIM WAS 2.125 IS (2.130), WAS .800 IS .83, WAS 5.05 IS 5.15; REMOVED DIM 1.886.	10/18/2016	SM	JAG

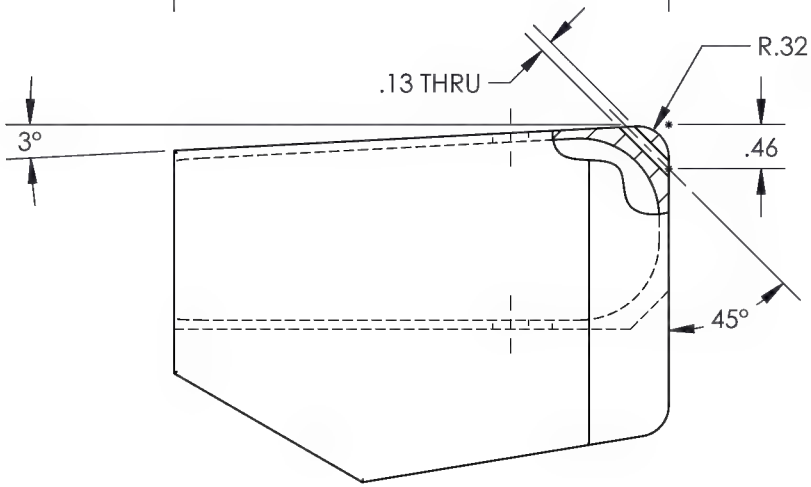








SECTION A-A



(-41)

MIRRORED WEDGE

DART AEROSPACE

TITLE: ENGINE MOVING DEVICE

DWG NO. RBEM721U7107104-41 REV 2

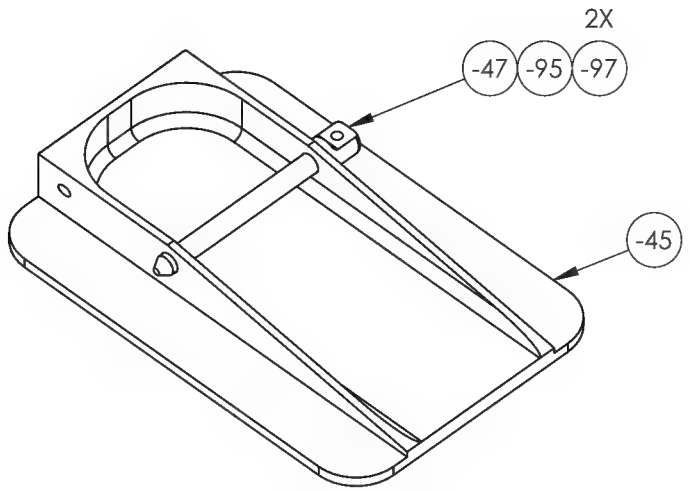
MAT'L	6061
HEAT TREAT	
FINISH	BLACK ANODIZE
SPEC	MIL-A-8625F, TYPE II, CLASS II
DRAWN BY:	CLOUGH
CHECKED:	DUERFELDT
OPPS APPR:	ANDERSON
QA APPR:	LINDSAY
APPROVED:	GILBERT

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
.XXX ± .005 FRACTIONS ± 1/8
.XX ± .01 ANGLES ±.5°
.X ± .1 SURFACES = 125

1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING
3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009

USED ON MODEL: H175

SCALE 1:2 DATE 3/17/2016 SHEET 22 OF 29



-43

RECTANGLE WEDGE ASSY

DART AEROSPACE

TITLE

ENGINE MOVING DEVICE

DWG NO.	REV
RBEM721U71071041-43	2

MAT'L	
HEAT TREAT	
FINISH	
SPEC	
DRAWN BY:	CLOUGH
CHECKED:	DUERFELDT
OPPS APPR:	ANDERSON
QA APPR:	LINDSAY
APPROVED:	GILBERT

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
.XXX ± .005 FRACTIONS ± 1/8
.XX ± .01 ANGLES ±.5°
.X ± .1 SURFACES = 125√

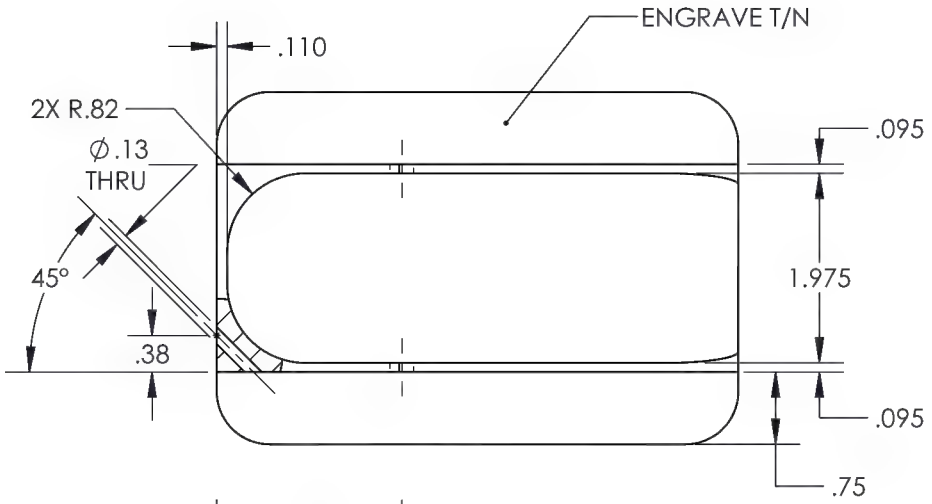
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING
3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009

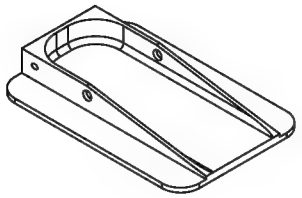
USED ON MODEL: H175

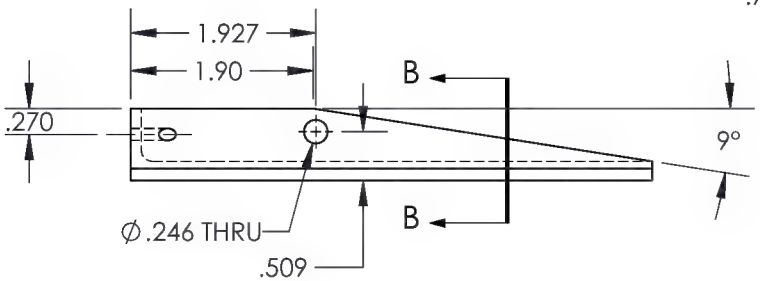
SCALE	DATE	SHEET
1:2	3/17/2016	SHEET 23 OF 29

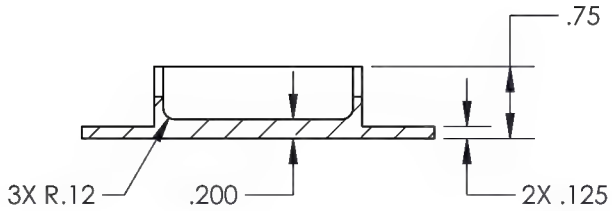
REVISIONS

REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	16-0174	**-45** ADDED "ENGRAVE T/N" NOTE; CH'D DIM WAS 1.99 IS 1.90, WAS 5.428 IS 5.43, WAS 12.0000 IS .75 WAS 183.2568° IS 9°; REMOVED DIM 12.0000, 12.0000, 5X R.03	10/18/2016	SM	JAG

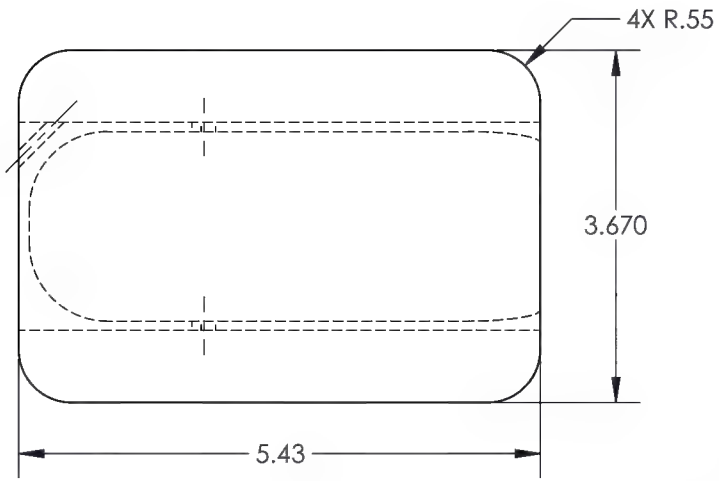








SECTION B-B



-45

RECTANGLE WEDGE

DART AEROSPACE

TITLE: ENGINE MOVING DEVICE

DWG NO. RBEM721U7107104-45 REV 2

MAT'L	6061
HEAT TREAT	
FINISH	BLACK ANODIZE
SPEC	MIL-A-8625F, TYPE II, CLASS II
DRAWN BY:	CLOUGH
CHECKED:	DUERFELDT
OPPS APPR:	ANDERSON
QA APPR:	LINDSAY
APPROVED:	GILBERT

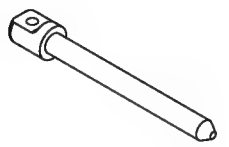
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
.XXX ± .005 FRACTIONS ± 1/8
.XX ± .01 ANGLES ±.5°
.X ± .1 SURFACES = 125

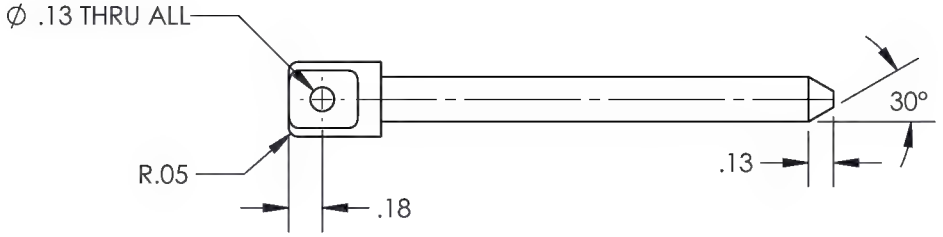
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING
3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009

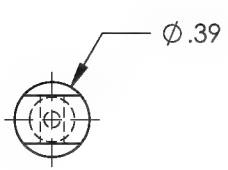
USED ON MODEL: H175

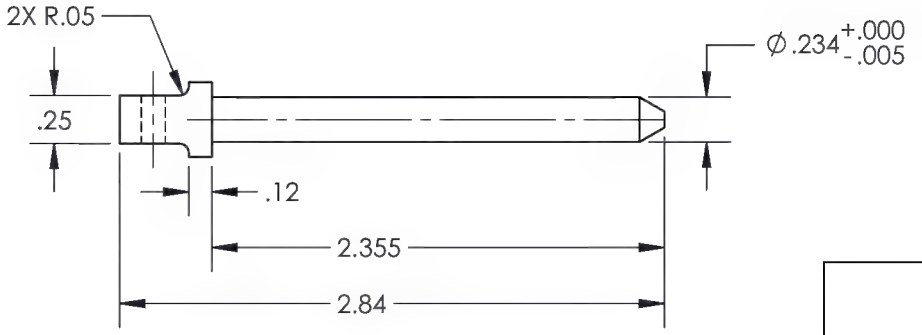
SCALE 1:2 DATE 3/17/2016 SHEET 24 OF 29

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED









-47

PIN

DART AEROSPACE

TITLE: ENGINE MOVING DEVICE

DWG NO. RBEM721U7107104-47 REV 2

MAT'L	S.S.
HEAT TREAT	
FINISH	
SPEC	
DRAWN BY:	CLOUGH
CHECKED:	DUERFELDT
OPPS APPR:	ANDERSON
QA APPR:	LINDSAY
APPROVED:	GILBERT

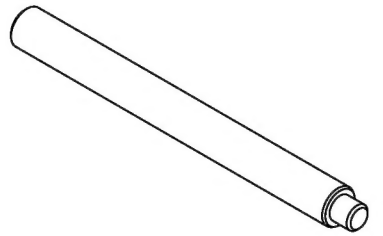
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
.XXX ± .005 FRACTIONS ± 1/8
.XX ± .01 ANGLES ±.5°
.X ± .1 SURFACES = 125

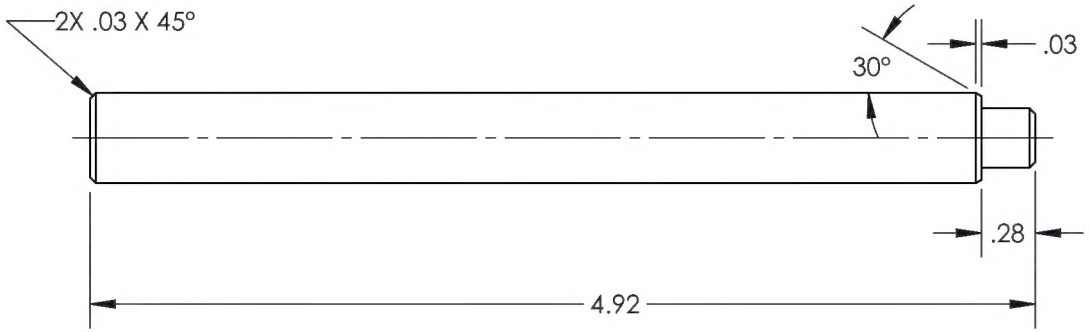
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING
3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009

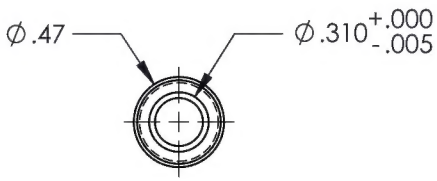
USED ON MODEL: H175

SCALE 1:1 | DATE 3/17/2016 | SHEET 25 OF 29

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED







-49

NUT HANDLE

DART AEROSPACE

TITLE: ENGINE MOVING DEVICE

DWG NO. RBEM721U7107104-49 REV. ?

MAT'L	S.S.
HEAT TREAT	
FINISH	
SPEC	
DRAWN BY:	CLOUGH
CHECKED:	DUERFELDT
OPPS APPR:	ANDERSON
QA APPR:	LINDSAY
APPROVED:	GILBERT

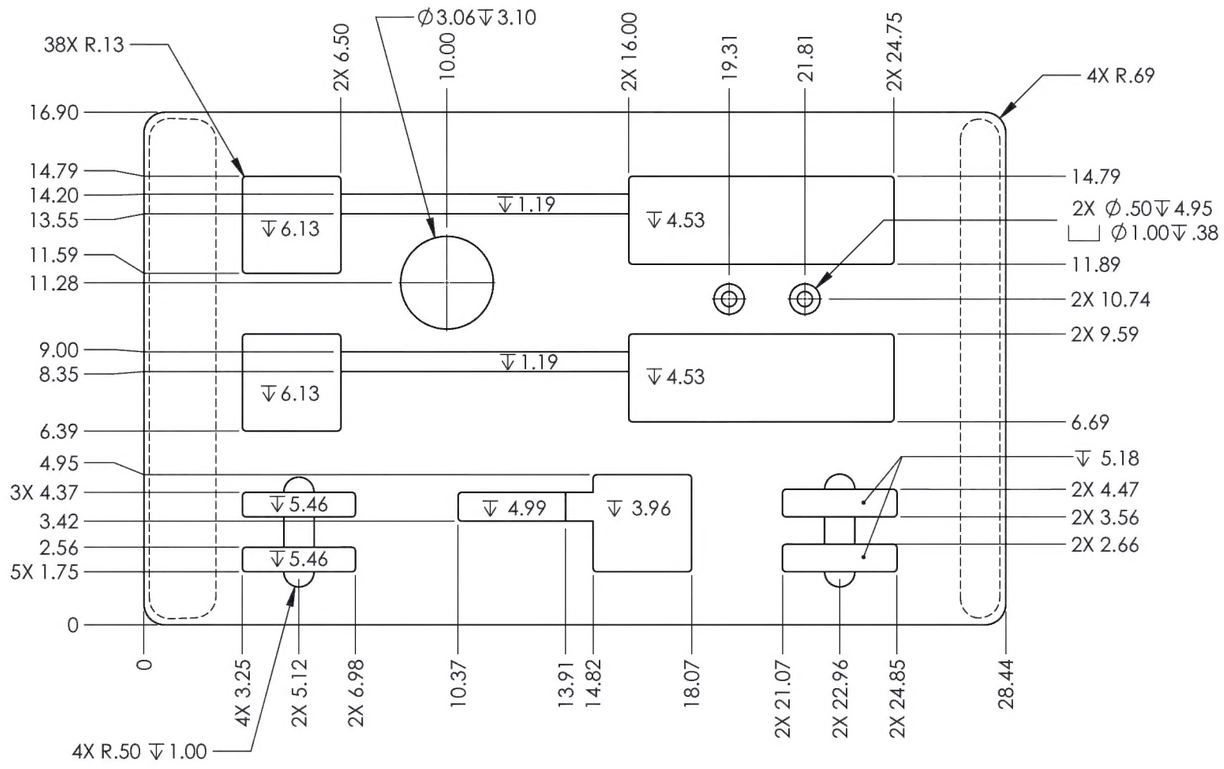
UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
.XXX ± .010 FRACTIONS ± 1/8
.XX ± .03 ANGLES ±1°
.X ± .1 SURFACES = 125

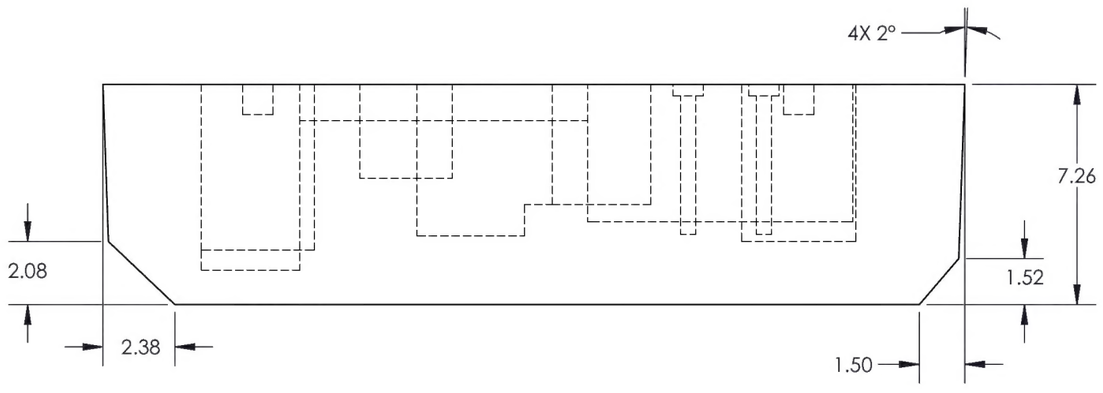
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING
3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009

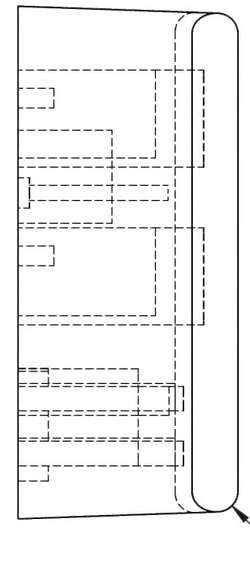
USED ON MODEL: H175

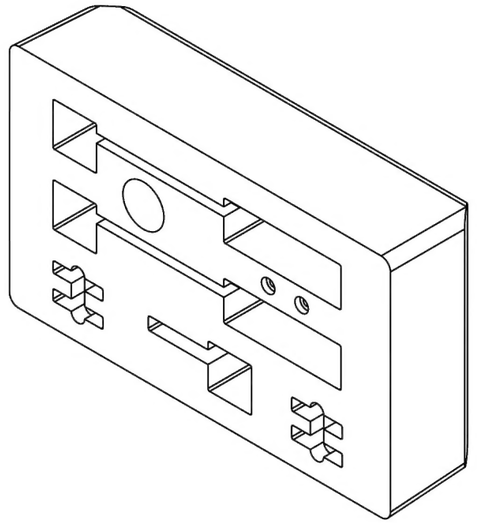
SCALE 1:1 | DATE 3/17/2016 | SHEET 26 OF 29

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	16-0174	**-87** CH'D DIM WAS 16.29 IS 16.90, WAS ⏬6.09 IS ⏬6.13, WAS 4.37 IS 3X 4.37, WAS ⏬4.84 IS ⏬4.99, WAS ⏬3.81 IS ⏬3.96, WAS ⏬5.08 IS ⏬5.18, WAS 2X 2.61 IS 2X 2.66, WAS 2X 3.61 IS 2X 3.56 WAS 4X 4.47 IS 2X 4.47; REMOVED DIM 2X 22.67, 2.34, 3.89; CH'D MATERIAL WAS Y20 BLACK IS ETHAFOAM 220, BLACK.	10/18/2016	SM	JAG









(-87)

BOTTOM FOAM

DART AEROSPACE

TITLE: ENGINE MOVING DEVICE

DWG NO. RBEM721U7107104-87 REV 2

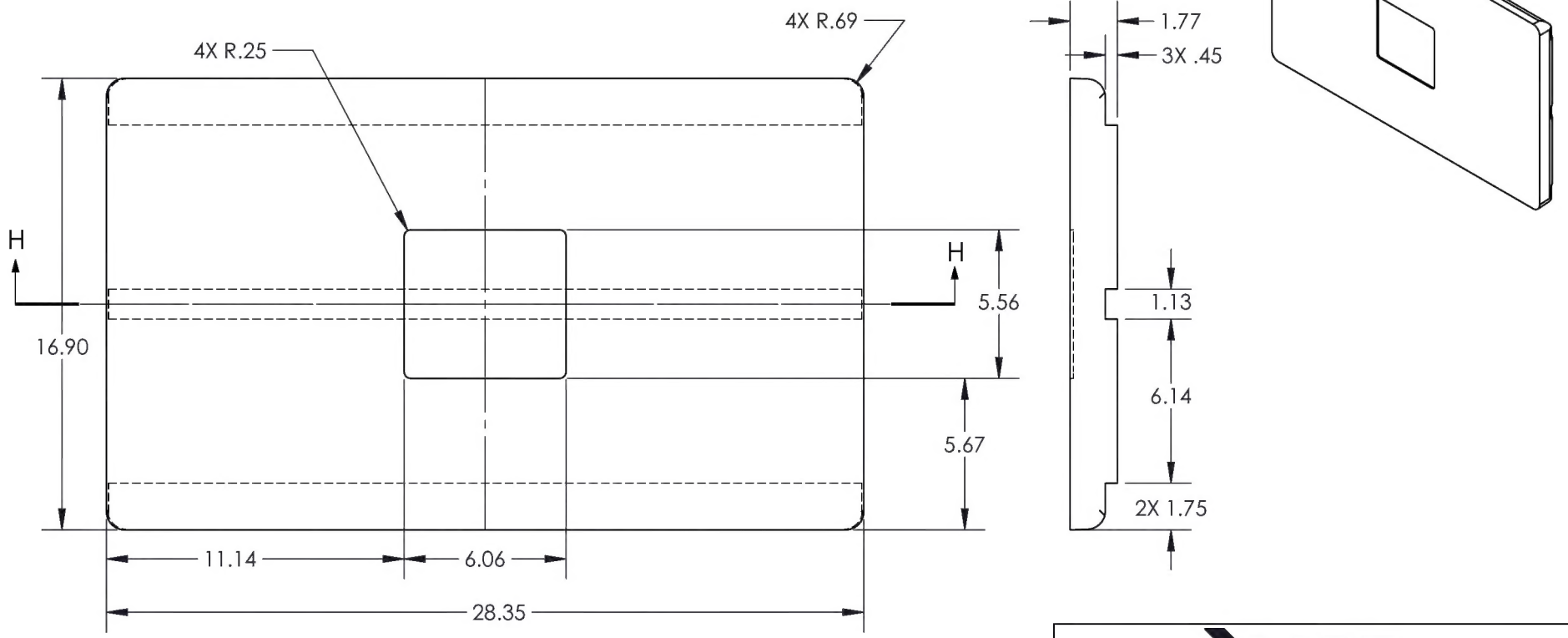
MAT'L	ETHAFOAM 220, BLACK
HEAT TREAT	
FINISH	
SPEC	
DRAWN BY:	CLOUGH
CHECKED:	DUERFELDT
OPPS APPR:	ANDERSON
QA APPR:	LINDSAY
APPROVED:	GILBERT

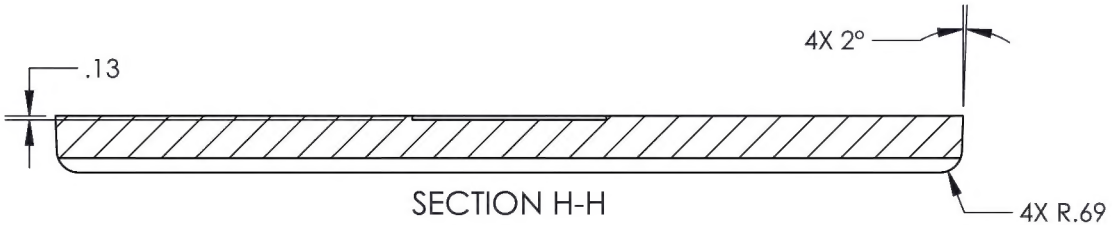
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
.XXX ± .010 FRACTIONS ± 1/8
.XX ± .03 ANGLES ±1°
.X ± .1 SURFACES = 125
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING
3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009

USED ON MODEL: H1758

SCALE 1:5 | DATE 3/17/2016 | SHEET 27 OF 29

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	16-0174	**-89** CH'D MATERIAL WAS Y20 BLACK IS ETHAFOAM 220, BLACK.	10/18/2016	SM	JAG





SECTION H-H

(-89)

LID FOAM

DART AEROSPACE

TITLE: ENGINE MOVING DEVICE

DWG NO. RBEM721U7107104-89 REV. 2

MAT'L	ETHAFOAM 220, BLACK
HEAT TREAT	
FINISH	
SPEC	
DRAWN BY:	CLOUGH
CHECKED:	DUERFELDT
OPPS APPR:	ANDERSON
QA APPR:	LINDSAY
APPROVED:	GILBERT

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
.XXX ± .010 FRACTIONS ± 1/8
.XX ± .03 ANGLES ±1°
.X ± .1 SURFACES = 125

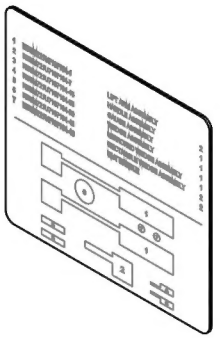
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING
3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009

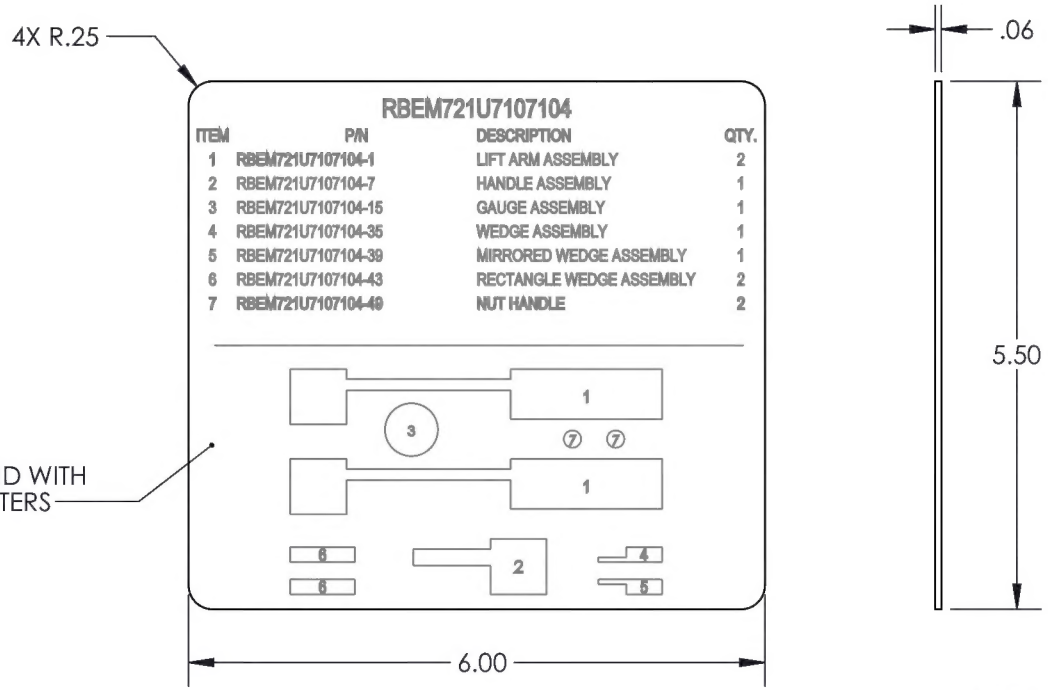
USED ON MODEL: H175

SCALE 1:6 DATE 3/17/2016 SHEET 28 OF 29

REVISIONS

REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	16-0174	**-93** CH'D TEXT WAS GUAGE ASSEMBLY IS GAUGE ASSEMBLY, WAS RBEM821U7107104 IS RBEM721U7107104.	10/18/2016	SM	JAG





NOTE:
USE PDF TO MAKE PLACARD.

-93

INSIDE PLACARD

DART AEROSPACE

TITLE: ENGINE MOVING DEVICE

DWG NO. RBEM721U7107104-93 REV. 2

MAT'L	PLASTIC
HEAT TREAT	
FINISH	
SPEC	
DRAWN BY:	CLOUGH
CHECKED:	DUERFELDT
OPPS APPR:	ANDERSON
QA APPR:	LINDSAY
APPROVED:	GILBERT

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
.XXX ± .010 FRACTIONS ± 1/8
.XX ± .03 ANGLES ±1°
.X ± .1 SURFACES = 125
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING
3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009

USED ON MODEL: H175

SCALE 1:2 DATE 3/17/2016 SHEET 29 OF 29